Newsletter for Birdwatchers

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Editorial

I am glad to report that the pending file of the Newsletter is now filling up and interesting notes and articles are being received from various parts of India. Kerala seems to be the most productive area from the point of view of birdwatchers. Perhaps this is a reflection of the rich and varied bird life of the State. Many worthwhile reports are also coming in from Assam. Gujarat has a large group of serious birdwatchers. Bangalore has always been the leader as far as the Newsletter is concerned, and this is possibly due to the good work done by E. Hanumantha Rao, Joseph George and S. Sridhar in motivating young people to take up ornithology as a serious hobby. Not many notes have been coming in from Maharashtra, though Prakash Gole's survey of the western coast is a splendid achievement, and Rishad Naoroji remains the supreme expert on our raptors.

May I again request contributors to check their spellings carefully and take the trouble to go over their manuscripts before sending them to the Editor. When there are obvious spelling mistakes relating to common birds, it is difficult to decide whether the notes supplied by the contributor have to be taken seriously and at face value. Remember that it is the duty of all birdwatchers to be completely honest in their reporting and not allow themselves to be hoodwinked by birds whose identification is often a very tricky business particularly when their forms and colours are distorted by unfavourable light conditions.

A number of requests for subscriptions, renewals, change of addresses come to me. These should all go to S. Sridhar. I want to preserve my energies only for editorial work.

Birdwatching in Israel

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Recently I had an opportunity to do birdwatching in Israel. I was invited by the Society for Protection of Nature to participate in a conference and seminar on the role of N.G.Os in nature conservation.

I was there during the first two weeks of April when the migratory birds return from Africa to Europe. Most of these birds prefer to fly over land and not over the Mediterranean Sea while crossing the continents. Hence most of them pass over this narrow stretch of land which is Israel.

Eilat which is the southern point of Israel on the shores of the Red Sea is the favourite place of birdwatchers. Our conference was in this town and I was here for five days. The very first morning when I got up early at 6 A.M. and went out jogging, I could see some black spots on the top of the hills about 300 meters high.

On observing through the binoculars, the big "birds" turned out to be birdwatchers with telescopes sitting on chairs right on the top ridge of the hill.

Later I learnt that more than five thousand birdwatchers visit Israel during migration period. We visited the Ringing station at Eilat next morning at 6.30 A.M. and saw the process of trapping and ringing birds. Experienced birdwatchers from all over the world come here to work voluntarily, full boarding and lodging is provided by Israel Raptor Information Centre. The ringing centre is operated by the International Birdwatching Centre, Eilat.

Eilat has a rich avifauna, comprising of desert species, tropical species typical of Rift Valley, Mediterranean species, and Red Sea birds. There are many different locations for birdwatching here like the desert, sea, ponds, salt-pans agricultural areas and Date palm plantations.

Near the sea I saw Lesser Black-backed Gulls, Great Black-Headed Gull, Armenian Gulls, Slender Billed Gulls, Black Terns, Crested Terns, White Storks, Brown Boobys, and Western Reef Herons. Also over the sea thousands of feral pigeons were seen flying towards the East, which is Aqaba, the port in Jordan where they feed on grains spilled during unloading of ships. So these pigeons are daily crossing international borders and come back to roost in Israel.

In the salt pans I saw Flamingos (*Phoenicopterus ruber*), herons, egrets, gulls and Caspian Tern. Waders like Little stint, Redshank, Ringed Plover, Kentish Plover, Black winged stilt and Spur-winged plover were common.

In the date palm plantation there were Squacco Heron, Green and Wood sandpipers, Snipe, crakes and raptors like Levant sparrow hawk, Eagle Owl, Emyrna kingfisher, Yellow vented bulbul and Spanish sparrows. This date plantation is about 20 years old but it looks very natural.

A small patch of natural Acacia scrub very near the border with Jordan, is home to the Great grey shrike, Arabian warbler, Yellow wagtails, Swallows, Sand Martin and Savis Warbler.

Near Eilat they are making a bird Sanctuary by converting a 57 hectare rubbish dump into a haven for birds and birdwatchers. The area is being planted with trees and desert shrubs using surplus sewage water. Visitors are invited to plant trees with their own hands.

I also visited the raptor watching point, Mount Yoash (734 meters above sea level) which commands an impressive Panorama and is an excellent view point. One can see the Red Sea and Jordan on the East, Saudi Arabia on the South, Egypt on the West and Israel in the North. From here I saw large clouds of the White Storks, Swifts and Bee-Eaters passing overhead.

The records of the Israel Raptor Information Center shows that more than 8,00,000 migrating birds were counted above Israel within 45 days. These include 5,80,000 raptors of 30 species, 1,90,000 White Storks and 36,000 White pelicans.

In the southern part of Israel, about 60% is desert, and the North is green, full of agriculture, and further North there are a few mountains with snow on the top. So although this country is only 700 kms from North to South and 150 kms from East to West all type of habitats are found here.

In the North I did some birdwatching at fish breeding ponds on the sea coast. There is a stretch of 12 km long and 1/2 km wide area full of fish breeding ponds, where the water is aereated by electric pedals. Large amount of fish present in these ponds attract many varieties of water birds and hundreds of them were seen. Mainly Black headed gulls, Herons, Caspian Terns, Cormorants, Black winged stilts, Avocets, Mallards, Egrets, Coots and Pied Kingfishers were seen.

The methods adopted to scare the birds away were interesting. Scare crows, dead birds hung from poles, and thin strings just above the water level in the ponds were used.

Yellow wagtails and Spur winged plovers were also seen on the edge of ponds. One nest of a Spur winged plover with four eggs was found in a fish pond which was empty. But water had just started to fill from one end and the poor bird had to take off when the eggs started to drown.

Near these ponds was a grove of tall eucalyptus trees and my friend took me there and showed me a roosting colony of Egrets and he was very excited to see young hatchlings. This is very rare in Israel, and another birdwatcher with us from Poland was surprised to see Egrets nesting for the first time in his life.

Then we went to the sea shore where lots of Spur-winged plovers were nesting on the beach. There was a small island in the sea about 150 metres away from the beach, it was full of Cormorants. Nobody disturbs the birds over here.

In the Northern most part of the country there is a beautiful place for bird watching ; the Huleh Nature Reserve. (Until the early 1950's the Huleh area was covered with swamps and marshes. In 1951 a massive drainage project began. The work was completed in 1957 and is still considered to be the greatest reclamation project undertaken in Israel. Only about 310 hectares (786 acres) of swamps and marshes were left untouched from a total of 15,000 acres today comprising the Huleh Reserve. In 1964, under the newly-passed National Park and Nature Reserves Law, this area was officially declared Israel's first nature reserve.

The reserve is a rare meeting point of African and European flora and fauna, serving respectively as their northernmost and southernmost points of geographical distribution. The papyrus plant is prominent among the vegetation, that flourishes in the reserve. Water buffaloes, known in Arabic as "Jamus" wade in the marshes.

The Huleh Reserve is world renowned for its birdlife. During the fall migration thousands of pelicans throng the area. The winter visitor can admire thousands of ducks of all kinds, as well as hundreds of herons, and other birds - including the cormorant, which winters at the Huleh. Thousands of gulls commute daily from the reserve to the Sea of Galilee. Large numbers of Wood pigeons, Stock Doves, Jackdaws and Hood crows congregate here nightly to roost in the high trees. Flocks of Greenheaded ducks also spend the night here, along with both Great white egrets, Little egrets and Grey herons. Because of seasonal migration and nesting patterns, the bird population varies widely at different times of the year.

One other interesting place for birdwatchers in Israel is Nahal Gamla, extreme North of the country. Here, there are deep valleys with vertical rock cliffs. These cliffs are about 400 meters high and the valley is 300 meters wide.

This area is the breeding ground of Griffon Vulture, Egyptian Vulture, Bonellis Eagle, Long-legged buzzard and Kestrel. We could see Griffon vultures nesting and we also saw many Griffons soaring and displaying to their mates.

We also visited the captive breeding programme of Griffon vultures. These birds had become very rare a few years back so they started breeding them in captivity. Since last year they have started releasing 5 year old birds back into the wild after fitting them with transmitters. They are continuously being tracked by satellites and university students are engaged full time to study them. The breeding takes place in selected zoos and before releasing they are housed in a large enclosure on a hill top from where they can see other birds flying around. From here they are freed. We saw three freed birds gliding nearby and they were identified by our guide from the wing tip identification marks. One free bird was sitting on top of the enclosure. Presumably he did not know that now on he had to manage for himself !

Israel being such a small country with a heavy migrating bird traffic in the sky creates havoc for the Israeli Jet fighters and each year an average of 30 Jets crash due to the bird hits. To overcome this problem, the Society for Protection of Nature in Israel undertook a detailed survey of the migrating birds. One powered glider was hired and flying with the migratory birds recorded everything relating to their flight, like speed, height, temperature, the exact flight paths, dates of North to South and South to North migration. This data was gathered for all species of birds and fed into a computer. The resulting graphs and charts were used to determine the safest paths of the Jets.

The results was quite unbelievable and the average crash per year came down to 30 after the pilots were trained to identify the birds and which path to select. Thus now this society receives a large amount of funds from the air-force to conduct research on bird migration.

My trip to Israel from the bird watching point of view was very exciting, informative and memorable. Readers who are interested to know more can write to International Birdwatching Center, Eilat, P.O. Box 774, Eilat 88106 Israel OR Israel Raptor Information Center, Har Gilo, Doar Nazfon Yehuda, 90907, ISRAEL.

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Paintings of Indian Birds by Lady Elizabeth Gwillim at McGill University, Canada

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During the six months I was with McGill University at Montreal in Canada, I spent considerable time making use of its excellent library facilities. Details on the entire collection of books, periodicals, reports, records and such others held in over half a dozen McGill University libraries, spread over two campuses, is computerized on an on-line catalogue called as MUSE. Using any of the numerous computer terminals at the University, one can access information on McGill library materials. By using an advanced keyword searching on my computer (within a few

days of my arrival at McGill, I learnt that the university had an almost complete set of British works on Indian birds in its collection). Late one night in February this year, while browsing through the McGill's library collections, I found out that McGill also held several original paintings on Indian birds. Punching a few more keys of my computer, I had more information on the paintings. The paintings were painted by one 'Lady Elizabeth Gwillim'. At that moment what shocked me out of my belief and made me sit up was the year when they were painted. Marked next to her name was "1800-". It took me only a little time to realize that these paintings in fact had been painted much before **John James Audubon** published his complete works on the *Birds of America* in London (between 1827-1838) !

Next morning found me at the Blacker-Wood Library in the downtown campus of McGill. Soon, when I identified myself and I told the staff-in-charge of my wish to see the paintings, she led me to the *Rare Book Section* where the paintings were held and what I saw there was something I was not really prepared for — a set of superb water-color plates not a few, but 121 in all and some of them were *double elephant folio* plates, measuring 36" x 27"! Looking at those paintings, was a real feast to my eyes. What thrilled me was the realization that, I was looking at the works of a truly great artist whom many (or is it any?) Indian ornithologists did not know of and I was one of those fortunate few Indians who had a chance to see them. When I expressed my wish to learn more about Lady Gillim and as to how the paintings came to be at McGill, the information system at the library readily obliged. Here is what I gathered:

In 1924, Dr. Casey Wood, the curator of the Blacker-Wood Library of McGill University was in London on a buying expedition. The Library had only been in existence for 4 years and he was trying to make it into one of the finest natural history libraries in the world. Browsing in an antique store, he asked the proprietor if he might have any old books or paintings about birds. The result was a visit to the musty basement where a portfolio of paintings contained — 1 alligator, 12 flowers, 30 fish and 121 birds (judging from the numbering on the paintings, there had originally been 208 bird paintings but the rest had been sold off individually) with, on the title page of the portfolio, the name of Lady Elizabeth Gwillim. Dr. Wood was delighted and purchased the entire collection for $76. During the next few years, he managed to learn the names of the artist's husband and children, the date of their trip to India, and the dates of her birth and death. Later, he even managed to visit her grave in India. It was not until 1976, after sporadic attempts over the years by the staff of the Blacker-Wood Library and various interested individuals who were dragooned into the search, that they learned her maiden name, Elizabeth Symonds or until 1979 that her parents were identified.

Born in Hereford, England in April 1763. Elizabeth was the daughter of Thomas Symonds, architect and stonemason, and his wife, Hester. Her sister Mary was born in 1772. Sometime in her early twenties (between 1783 and 1786) Elizabeth married Henry Gwillim, a young lawyer three years her senior. Their daughter, Ann was born in the spring of 1787 and their son, Henry in the fall of 1789. In 1800, Henry Gwillim was appointed as a Judge of the Supreme Court of Madras, and in 1801 he, his wife, her sister, and two servants sailed to India. That same year he was knighted and became Sir Henry Gwillim. Elizabeth died in Madras in December, 1807 at the age of 44 and was buried there at St. Mary's Church. In 1809, Sir Henry was recalled to England as a result of his disputes with the Madras government. Eventually he remarried another Elizabeth and they both died in 1837.

In the early 1800s, when Lady Gillim was passing her time in India painting its flora and fauna, ladies were expected to draw prettily but it would have been unthinkable for one to be such a "real" artist. Consequently, although Lady Gwillim's bird portraits are extremely lifelike, scientifically accurate (they were painted from live, not mounted, specimens), and very artistic (but never over-theatrical, as seen in some of dramatized Audubon works), they were never published and even today she is virtually, but not entirely, unknown.

In 1975, the Royal Ontario Museum in Canada put on an exhibition of Animals in Art containing 312 paintings representative of the finest wildlife art throughout history. Lady Gwillim was represented by 10 paintings, twice as many as any other artist. In the catalogue of the exhibition, Terry Shortt, who is one of Canada's finest bird artists and who has spent considerable time in India, wrote: "Painted two decades before Audubon, her paintings rival and indeed in some respects excel those of the American master. It is apparent that all were done from life and represent the finest portrayals of birds done up to her time."

The stature of Lady Gwillim, the artist, can best be judged by examination of her work and posterity should establish her as one of the finest Indian natural history artist. For anyone interested and finds him/herself in Montreal, it is worth an effort to visit the Blacker-Wood Library at McGill to see Lady Gwilliam's works of art. A formal request however, has to be made well in advance to the librarian to obtain necessary permission, as the library is open only to the staff and students of McGill and no one, without proper identification, is allowed inside. Interested may contact: The Librarian, Blacker-Wood Library, Redpath Library Building, McGill University, Sherbrook Street West, Montreal, Quebec, Canada H3A 2T5.

List of Lady Gwillim bird paintings in Blacker-Wood Library :

1	Kestrel	
2	Brahminy Kite	*Haliastur indus*
3	Woolly-necked Stork	*Ciconia episcopus*
4	Purple Heron	*Areda purpurea* (Juvenile)
5	Indian Black Vulture	*Sarcogyps calvus*
6	Long-billed Vulture	*Gyps indicus*
7	Egyptian Vulture	*Neophron percnopterus*
8	Short-toed Eagle	*Circaetus gallicus*
9	Black-headed Ibis	*Threskiornis melanocephala*
10	Black Stork	*Ciconia nigra*

11	Bonelli's Eagle	*Hieraaetus fasciatus*
12	Crested Honey Buzzard	*Pernis ptilorhynchus*
13	Crested Serpent-Eagle	*Spilornis cheela*
14	Marsh Harrier	*Circus aeruginosus*
15	Marsh Harrier	*Circus aeruginosus*
16	Booted Eagle	*Hieraaetus pennatus*
17	Long-legged Buzzard	*Buteo rufinus*
18	Spot-billed Duck	*Anas poecilorhyncha*
19	Bar-headed Goose	*Anser indicus*
20	Indian Shag	*Phalacrocorax fuscicollis*
21	Brown-headed Gull	*Larus brunnicephalus*
22	Koel	*Eudynamys scolopacea*
23	Lesser Florican	*Sypheotides indica*
24	Eagle Owl	*Bubo bubo*
25	Bonelli's Eagle	*Hieraaetus fasciatus*
26	Oriental Darter	*Anhinga melanogaster*
27	Herring Gull	*Larus argentatus*
28	Herring Gull	*Larrus argentatus* (Juvenile)
29	Eurasian Bittern	*Botaurus stellaris*
30	Red Jungle Fowl	*Gallus gallus*
31	Indian Pond-Heron	*Ardeola grayii*
32	Cattle Egret	*Bubuclus ibis*
33	Grey Heron	*Ardea cinerea*
34	Grey Heron	*Ardea cinerea* (Female)
35	Smaller Egret	*Egretta intermedia*
36	Green Heron	*Butorides striatus*
37	Chestnut Bittern	*Ixobrychus cinnamomeus*
38	Sarus Crane	*Grus antigone*
39	Greater Adjutant Stork	*Leptoptilos dubius*
40	Smaller Adjutant Stork	*Leptoptilos javanicus*
41	Asiatic Openbill	*Anastomas oscitans*
42	Indian Pond-Heron	*Ardeola grayii* (in non-breeding plumage)
43	Chestnut Bittern	*Ixobrychus cinnamomeus*
44	Whimbrel	*Numenius phaeopus*
45	Curlew Sandpiper	*Calidris testaceus (feruginea)*
46	Painted Snipe	*Rostratula benghalensis*
47	Sanderling	*Calidris alba*
48	Red-wattled Lapwing	*Vanellus indicus*
49	Black-winged Stilt	*Himantopus himantopus*
50	Yellow-wattled Lapwing	*Vanellus malabaricus*
51	Temminck's Stint and Little Stint	*Calidris temminckii*, and *Calidris minuta*
52	Collared Pranticole	*Glareola pratincola*
53	Whitebreasted Waterhen	*Amaurornis phoenicurus*
54	Bronze-winged Jacana	*Metopidius indicus*
55	Pheasant-tailed Jacana	*Hydrophasanius chirurgus*
56	Banded Crake	*Rallina eurizonoides*
57	Blue-breasted Banded Rail	*Rallus striatus*
58	Baillon's Crake	*Porzana pusilla*
59	Indian Black Vulture	*Sarcogyps calvus*
60	Indian Black Vulture	*Sarcogyps calvus* (feet only)
61	Marsh Harrier	*Circus aeruginosus* (size smaller)
62	Pied Harrier	*Circus melanoleucos*
63	Montaguo's Harrier	*Circus pygargus*
64	Montagu's Harrier	*Circus pygargus* (Female)
65	Oriental Hobby	*Falco severus*
66	Kestrel	*Falco tinnunculus*
67	Purple Heron	*Ardea purpurea*
68	Tufted Duck	*Aythya fuligula*
69	Cotton Teal	*Nettapus coromandelianus*
70	White-cheeked Tern	*Sterna repressa*
71	Whiskered Tern	*Chlidonias hybrida*
72	Brown Shrike	*Lanius cristatus*
73	Bay-backed Shrike	*Lanius vittatus*
74	Large Cuckoo- Shrike	*Coracina novaehollandiae*
75	Blackheaded Cuckoo-Shrike	*Coracina melanoptera*
76	Common Babbler	*Turdoides caudatus*
77	Golden Oriole	*Oriolus oriolus*
78	Lesser Cuckoo	*Cuculus poliocephalus*
79	Indian Cuckoo	*Cuculus micropterus*
80	Common Hawk- Cuckoo	*Cuculus varius*
81	Pied Crested Cuckoo	*Clamator jacobinus*
82	Banded Bay Cuckoo	*Cacomantis sonneratii*
83	Black-headed Cuckoo-Shrike	*Coracina melanoptera*
84	Black-headed Myna	*Sturnus pagodarum*
85	Magpie-Robin	*Copsychus saularis*
86	Ashy Swallow-Shrike	*Artamus fuscus*
87	Small Green-billed Malkoha	*Rhopodytes viridirostris*
88	Lesser Golden-backed Woodpecker	*Dinopium benghalense*
89	Purple Sunbird and Loten's Sunbird	*Nectarinia asiatica*, and *Nectarinia lotenia*
90	Purple-rumped Sunbird	*Nectarinia zeylonica*
91	Painted Spurfowl	*Galloperdix lunulata*
92	Red Spurfowl	*Galloperdix spadicea*
93	Rain, or Black-breasted Quail	*Coturnix coromandelica*
94	Crested Wood-Partridge	*Rollulus roulroul*
95	Ringed Dove	*Streptopelia decaocto*
96	Spotted Dove	*Streptopelia chinensis*
97	Red Turtle-Dove	*Streptopelia tranquebarica*
98	Red- whiskered Bulbul	*Pycnonotus jocosus*
99	White-browed Bulbul	*Pycnonotus luteolus*
100	Yellow-bellied Fantail Flycatcher	*Rhipidura hypoxantha*
101	Kashmir Black Redstart	*Phoenicurus ochruros phoenicuroides*
102	Black Redstart	*Phoenicurus ochruros*
103	Forest Wagtail	*Dendronanthus indicus*
104	Large Pied Wagtail	*Motacilla maderaspatensis*
105	Indian Robin	*Saxicola fulicata*
106	Pied Bushchat	*Saxicola caprata*
107	Indian Robin	*Saxicola fulicata*
108	Common Iora	*Aegithina tiphia*
109	Eastern Ringed Plover	*Charadrius hiaticula*
110	Whitebellied Drongo	*Dicrurus caerulescens*
111	Great Eared Nightjar	*Eurostopodus macrotis*
112	Starling	*Sturnus vulgaris*
113	Scaly Thrush	*Zoothera dauma*
114	Cuckoo	*Cuculus canorus*
115	Corncrake	*Crex crex*
116	Desert Wheatear	*Oenanthe deserti*
117	Spot-billed Pelican	*Pelecanus phillippensis*
118	Paradise Flycatcher	*Terpsiphone paradisi*
119	Common Iora	*Aegithina tiphia*
120	Sunbirds	*Nectarinia* spp.
121	Red Munia	*Estrilda amandava*

Birdwatching In Maui, Hawaii (USA)

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Aloha, (meaning 'breath of life') greeted the airhostess as I boarded the Aloha Airlines from Honolulu, on my way to Kihei in the Maui Island - one of the islands in the chain of Hawaiian Islands. I knew my stay here from 14th January to 4th February (1994) would be warm and enjoyable as the crew made it to be aboard the Aircraft. There was a running commentary enroute the 25-minute flight to Kahului International Airport, spotting for US tourist places like Pearl Harbour and the Islands of Molokai, Lanai, etc.

Kihei was 20-minute drive from Kahului, Driving through sugarcne and pineapple fields, with coconut palms scattered here and there, coupled with pleasantly warm sunshine, gave me a sure at home feeling. The sighting of my first birds, the Indian Myna (brought here about 100 years ago) and the Cattle Egret, served to fortify that feeling. These two species occur in small loose flocks, and must be devouring quite some insects.

I began my earnest birdwatching from 15th January. Armed with a pair of 7 x 35 binoculars, I strolled out of the hotel around 6.00 a.m. It still appeared to be pre-dawn, and birds were not active. After a few such trips, I fixed 6.45 a.m. as the ideal time here, at least for this part of the year.

Almost everywhere in Kihei and other inhabited areas of Maui, the House Sparrow was common. This was another bird which made me feel at home. More of these 'at home' birds which I regularly watched at Kihei were the Spotted Munia, Spotted Dove and Redwhiskered Bulbul. In the dove, the 'chessboard' on the neck seemed to be bigger than in its Indian counterpart.

Another bird common around the hotels and condominiums along the beach, darting from coconut fronds to hedges and back was the House Finch. In size and flight they look like the sparrow, but is colourful with red on the head, throat, breast and rump. Likewise, among the tree canopies the Japanese White-eyes are invariably sighted.

On the inland waterfronts, the Hawaiian Stilt was the commonest bird. Near the Azeka Market is a large tank, bounded on half of the circumference by a woodland and the other with shops. The tank is fenced all around, and therefore affords more protection to the numerous Hawaiian Coots, Stilts, and Black-Crowned Night Herons. Along the North Kihei Road is the Kealia Waterfowl Refuge, probably the only protected zone for Waterfowls like Pintail and Northern Shoveller.

One bird which frequented gardens was the Barred Dove (size of our Little Brown Dove). This is probably the first to capitalise on feeding stations. In Lahaina, west of Kihei and a tourist spot for watching the Backhumped Whale, I saw these doves feasting on the bird-seed offered to Macaws, which were kept for sale. Incidentally, Macaws are favourite pets in the island.

Watching seabirds was a disappointment, as shores of Kihei and most of Maui are demarcated for surfing, sunbathing, whale watching, cruising, snorkling, camping etc. The stretches of white sandy beaches along South Kihei Road, with views of offshore Lanai, Kahoolaws and Crescent-shaped Molokini islands, has several hotels and condominiums whose lawns almost touch the sea; these have been developed only in the last 20 years. Seabirds like Brown Noddy, Red-footed Bobby, Wedgetailed Shearwater, Tropic bird, Frigate bird were conspicious by their absence. I've not yet checked on their migratory or local movement habits. But, on the beaches, unmindful of proximal human presence were the Sanderlings, as they opportunistically followed the receding wave for molluscs or insects brought fresh from sea. Conservationists of Maui should caution against over-exploitation of beaches for tourisms. At the moment only Mokeehia islet on the north offers sanctuary to sea birds.

I missed seeing the Cardinals - the Northern Cardinal and Redcrested Cardinal in Maui. But, I saw the latter in Honolulu (Oahu island), of all the places in the basement carpark of a multistorey apartment. My Indian friend, Dr. M. Aradhya, a scientist at the East-West Centre, told me that this bird is a frequent runover victim.

Maui island has patches of scrubland, almost undisturbed, scattered here and there and the characteristic birds were Erckel Francolin and the Skylark. The Californian Quail is probably found here, but I could not confirm it.

On eastern Maui is the world famous Haleakala - a dormant 10,025-foot Volcano with 21 miles circumference and a 3000-foot chasm. The summit has moon-like craters, clearly visible from overhead flights. The Nene or Hawaiian Goose (the State bird) is found here. Unlike other geese, it's webbed feet are different, an adaptation, to live among the laval formations.

According to a tourist guide "Maui Gold" (1994), nearly 23 out of 59 species of birds have become extinct here in the past due to demand for feathers in royal costumes. The current threat to bird habitats, especially in the tropical forests, is the feral pigs, brought here 400 years ago by the white man. Now the Nature Conservancy of Hawaii are fencing the 5230-acre Waikamoi and 800-acre Kipahulu Preserves to make them pig-free. The pigs trample by hordes the ground cover flora, as a result, erosion in the tropical forests following torrential tropical rains is immense,

disrupting the food chain. This is the main reason attributed to the rarity of the Crested Honey Creeper and Parrot-bill, two birds, according to Maui Gold, native only to Maui and whose numbers are less than 500.

I am thankful to my friend Dr. N.K. Krishna Kumar, who until recently was a research scholar at East-West Centre, Honolulu, for gifting me a "Guide to the Birds of hawali", 1983, Natural World Press, California. It is a 22 x 14 cm glossy hard-board depicting 51 birds in colour (art work by Red MacPherson) on both sides. This carry-easy guide was of great use to me.

Maui is described as "America's Magic Isle". The Hawaiian's boast of it as "Maui no ka oi" (Maui is the best). With three weeks of my stay here, I have no hesitation in joining the islanders in echoing the same sentiment.

■

The Birds of West Coast

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Between 23rd February and 28th February 1994, I covered the coast south of Bombay, i.e. from Harihareshwar, famed for its temple to Alibag-Kihim where Salim Ali had his ancestral home. In this period I observed birds on 11 beaches and 5 creeks. Lying within 100 kms from Bombay, this part of Maharashtra coast is dotted with tourist resorts, hotels and spacious bungalows of the rich overlooking beaches. Between beaches large stretches of the coast line are rocky where the only vegetation is stunted mangroves. The rocks have kept casuarina and coconut groves at bay. Beaches are mainly straight or even zigzag with rocky outcrops here and there. The creeks are wide with extensive mudflats and dwarf mangroves as in Srivardhan and Alibag. They were seen to attract a variety of waders not seen in other stretches of the coast line and were therefore, ornithologically more interesting than the beaches.

White-bellied sea eagles were observed only at Harihareshwar, Revanda and Kihim, though in the last place only a single immature individual was seen. As I was observing him, when at precisely the same moment a dolphin was surfacing ; the eagle almost snatched the fish from the dolphin. No active eagle nest was located, the one seen near Harihareshwar on a casuarina looked old and presently not in use though an eagle was perching nearby. As elsewhere waders on the beaches were mainly sand plovers both Lesser and Greater, some of them now looking brilliant in their breeding plumage. I had observed Terek sandpiper (*Tringa terek*) on Murud-Janjira beach over 25 years ago. This species was found to frequent this beach still. A few were also seen on Nagaon beach while a flock of 20 Terek sandpipers was noted on Shreevardhan creek. Another spectacular wader which was noticed only in this stretch was Oystercatcher (*Haematopus ostralegus*). He was observed only on creeks such as Shreevardhan and Alibag and not on any beach. However, Zafar Futehally had written to me that he had seen them earlier in the season on Kihim beach. Curlews and Whimbrel, solitary or in twos, were seen on most beaches but they were more numerous in creeks. A flock of 25 Golden plovers (*Pluvialis dominica*) and one of 20 Dunlins (*Calidris alpina*) were noticed on the creek south of Alibag. Common sandpipers, an occasional Marsh sandpiper (*Tringa stagnatilis*) and a group of 8 Greenshanks (*Tringa nebularia*) on Nagaon beach were the other waders seen.

Assemblies of Brownheaded and Blackheaded gulls were noted on Harihareshwar, Murud-Janjira, Kashid and Chaul beaches and in Korlai creek, but the flocks were small consisting of 250-300 birds in each flock. A few herring gulls were mixed with them. A single Great blackheaded gull was seen in the flock on Chaul beach. Gull-billed terns were present on almost all beaches, their numbers reaching 250 in Dighi creek. A 250-strong flock of little terns on this creek and one of about 100 Lesser crested terns on Korlai creek provided a wonderful spectacle. Large crested terns (*Sterna bergii*) seen on Dighi creek were noted for the first time during this survey. Also Brownwinged terns (*Sterna anaethetus*) in ones or twos were noted on Alibag, Dighi and Rajuri creeks.

Reef herons in both black and white phases were present on most of the beaches and creeks, though I failed to notice during this stretch a different reef heron which I would have called an Eastern reef heron (*E. sacra*). Pond herons were also present on most beaches and at kihim we saw a lone Blackwinged stilt (*Himantopus himantopus*).

Thus in this survey of the west coast (in Maharashtra state) carried out between December 1993 and February 1994, I visited 50 beaches and 10 creeks. I give below the total number of birds observed during the survey on beaches and creeks.

Name of the Bird	No. on beaches	No. in creeks	Total
Little cormorant	15	5	20
Cattle egret	1600	108	1708
Little egret	-	38	38
Large egret	-	3	3
Pond heron	37	49	86
Reef heron (Black)	48	25	73
Reef heron (White)	27	10	37
Reef heron (Eastern)	4	-	4

Pariah kite	21	26	47
Brahminy kite	51	7	58
Whitebellied sea eagle	35	-	35
Osprey	2	-	2
Lesser sand plover	4290	20	4310
Greater sand plover	253	-	253
Kentish plover	496	-	496
Redshank	4	12	16
Greenshank	8	2	10
Common sandpiper	38	14	52
Marsh sandpiper	2	3	5
Terek sandpiper	7	30	37
Spotted sandpiper	-	2	2
Oystercatcher	-	8	8
Turnstone	3	1	4
Curlew	21	6	27
Whimbrel	9	9	18
E. Golden plover	-	25	25
Dunlin	-	22	22
Eastern knot	1	-	1
Blackheaded gull	4915	400	5315
Brownheaded gull	5245	500	5745
Herring gull	505	50	555
Lesser blackbacked gull	185	25	210
Great blackbacked gull	80	-	80
Gullbilled tern	170	420	590
Lesser crested tern	785	30	815
Sandwich tern	490	-	490
Large crested tern	-	15	15
Brownwinged tern	-	11	11
Little tern	80	250	330
Caspian tern	3	1	4
Blackcapped kingfisher	1	1	2
Small blue kingfisher	10	4	14
Whitebreasted K.fisher	3	-	3
Grey heron	-	7	7
Blackwinged stilt	-	1	1

In the end the highlights of this survey may be reiterated: Sandwitch terns in substantial numbers were seen for the first time on this stretch of our coast. *E. sacra* or the eastern reef heron as a sight record needs to be substantiated by a specimen to verify as the standard books vary in its description and habits. Though the population of White-bellied sea eagle still appears to be without a major threat, large-scale industrialization along the coast is likely to have an adverse effect on this predator. Disappearance of mangroves together with their characteristic bird, the Blackcapped kingfisher, is certainly a cause for concern.

■

Walayar - An Avian Picture

PRAVEEN J. and AJITH MENON, 14/779(2), K. Medu, Palakkad, 678013, Kerala, and SANJU VARGHESE GEORGE, C 9, MCL Coly, Walayar.

In the vicinity of the green-capped Nilgiri hills and with an enchanting reservoir at its foot, lies Walayar, 23 kms East of Palakkad town on the Kerala-Tamilnadu border. This town with varied ecosystems and MSL reaching 700 metres, forms a rich paradise for birds. It receives rain from both the monsoons.

The vast land area may be divided into three physical divisions.

(1) Walayar reservoir

(2) Low lying teak forests

(3) Evergreen and moist deciduous high altitude forests.

The reservoir area based on the rains, varies seasonally. During the monsoon i.e. June to September, it is around 600 acres and is inhabited by cormorants, darters and teals. Rarer ones like Pintails (*Anas acuta*) and Spotbills (*Anas poecilorhyncha*) are also seen.

During the winter season from October to February, the reservoir spans a huge marshland housing large numbers of plovers, sandpipers, shanks and pratincoles. All four egrets along with grey and purple herons are common. A Reef heron (*Egretta gularis*) was noted on 11-1-94. This season marks the arrival of some large waders viz Black stork (*Ciconia nigra*), White Necked Stork (*Ciconia episcopus*). Painted stork (*Mycteria leucocephala*), White ibis (*Threskiornis aethiopica*) and Openbills (*Anastomus oscitans*). Some of them stay till April before they leave for their respective breeding grounds.

From March to May, i.e. the summer season, the reservoir turns into a large dryland with small temporary throny herbs. Pipits, larks and shrikes abound in this scrubland feeding on ground insects. Meodious songs of Syke's crested lark (*Galerida deva*) and Small Indian skylark (*Alauda gulgula*) descend from the air. Rich bird life can be spotted in the ecotones where the reservoir and teak forests meet. The Rufous bellied babblers (Dumetia hyperythra)

along with Yellow eyed babblers (*Chrysomma sinense*) with other congeneric species are commonly seen.

The teak forests have a varied avifauna from tits to large raptors. The fact that Walayar is one of the few places in Kerala where low lying forests exist makes it unique. Apart from common woodland birds, rare hill birds like Ceylon frogmouth (*Batrachostomus moniliger*), Rufous woodpecker (*Micropternus brachyurus*) Gold fronted chloropsis, Little spider hunter (*Arachnothera longirostris*) descend occassionally from the hills, Raptors like Crested serpent eagle, Booted eagle, Crested honey buzzard, Black eagle, etc have been seen here. The great Indian Horned Owl (*Bubo bubo*) can also be seen occasionally. Drongos and parakeets make the forests lively with their calls.

As you climb the hills the variety of avians begins to change and the number decreases rapidly. The thick evergreen and moist deciduous jungles around the Malabar cement mines are inhabited by Fairy bluebirds, Malabar trogons (*Harpactes fasciatus*), Hill mynahs, a rich variety of flycatchers and babblers, green pigeons, imperial pigeons, etc. The clattering calls of the Southern treepie (*Dendrocitta leucogastra*) and Racket tailed drongos (*Dicrurus remifer*) enliven these forests.

With such a rich avifauna, Walayar needs to be protected. In recent years, it is facing pollution and deforestation. The dam water is polluted by industrial, pesticidal and sweage pollutants. Increasing vehicle traffic on the highway (NH 47) passing through the heart of the teak forests release poisonous effluents affecting the ecosystem. And last but not the least, the industrial pollution of Malabar cement factory both in the hills and teak forests and massive deforestation carried out by them have degraded these forests dramatically. Each leaf of every tree has got cement dust coating which hampers the gas exchange through the stomata of leaves. The natural ecosystem of Walayar is doomed unless the public and conservationists rally forward.

The given list has been prepared after a period of active birding for three years. Still vast tracts of highland forests remain inapproachable and unstudied. So this list is not comprehensive.

Acknowledgements

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CHECKLIST OF BIRDS OF WALAYAR

PODICIPEDIDAE		
001	Little grebe	*Podiceps ruficollis*
PHALACROCORACIDAE		
002	Large cormorant	*Phalacrocorax carbo*
003	Little cormorant	*Phalacrocorax niger*
004	Darter	*Anhinga melanogaster*
ARDEIDAE		
005	Purple heron	*Ardea purpurea*
006	Pond heron	*Ardeola grayii*
007	Cattle egret	*Bubulcus ibis*
008	Smaller egret	*Egretta intermedia*
009	Little egret	*Egretta garzetta*
010	Night heron	*Nycticorax nycticorax*
011	Large egret	*Egretta alba*
012	Grey heron	*Ardea cinerea*
013	Reef heron	*Egretta gularis*
CICONIIDAE		
014	Black stork	*Ciconia nigra*
015	White necked stork	*Ciconia episcopus*
016	Painted stork	*Mycteria leucocephala*
017	Openbill stork	*Anastomus oscitans*
THRESKIORNTHIDAE		
018	White ibis	*Threskiornis aethiopica*
ANATIDAE		
019	Spotbill duck	*Anas poecilorhyncha*
020	Pintail duck	*Anas acuta*
021	Cotton teal	*Nettapus coromandelianus*
022	Lesser whistling teal	*Dendrocygna javanica*
023	Garganey	*Anas querquedula*
ACCIPITRIDAE		
024	Black winged kite	*Elanus caeruleus*
025	Crested honey buzzard	*Pernis ptilorhyncus*
026	Pariah kite	*Milvus migrans*
027	Brahminy kite	*Haliastur indus*
028	Shikra	*Accipiter badius*
029	Booted eagle	*Hieraaetus pennatus*
030	Black eagle	*Ictinaetus malayensis*
031	Pale harrier	*Circus macrourus*
032	Crested serpent eagle	*Spilornis cheela*
033	Crested hawk eagle	*Spizaetus cirrhatus*
034	Marsh harrier	*Circus aeruginosus*
FALCONIDAE		
035	Kestrel	*Falco tinnunculus*
PHASIANIDAE		
036	Grey jungle fowl	*Gallus sonneratii*
037	Indian peafowl	*Pavo cristatus*

RALLIDAE

038	White breasted waterhen	*Amaurornis phoenicurus*

CHARADRIIDAE

039	Red wattled lapwing	*Vanellus indica*
040	Common sandpiper	*Tringa hypoleucos*
041	Green sandpiper	*Tringa ochropus*
042	Wood sandpiper	*Tringa glareola*
043	Snipe	*Gallinago spp.*
044	Little ringed plover	*Charadrius dubius*
045	Kentish plover	*Charadrius alexandrinus*
046	Greenshank	*Tringa nebularia*

GLAREOLIDAE

047	Little pratincole	*Glareola lactea*

ROSTRATULIDAE

048	Painted snipe	*Rostratula benghalensis*

LARIDAE

049	Indian river tern	*Sterna aurantia*
050	Whiskered tern	*Chlidonias hybrida*

COLUMBIDAE

051	Grey fronted green pigeon	*Treron pompadora*
052	Jerdon's imperial pigeon	*Ducula badia*
053	Spotted dove	*Streptopelia chinensis*
054	Emerald dove	*Chalcophaps indica*
055	Bluc rock pigeon	*Columba livia*

PSITTACIFORMES

056	Rose ringed parakeet	*Psittacula krameri*
057	Blossom headed parakeet	*Psittacula cyanocephala*
058	Blue winged parakeet	*Psittacula columboides*

CUCUCIDAE

059	Pied crested cuckoo	*Clamator jacobinus*
060	Common hawk cuckoo	*Cuculus varius*
061	Indian Koel	*Eudynamys scolopacea*
062	Greater coucal	Centropus sinensis

STRILIDAE

063	Brown fish owl	*Bubo jacobinus*
064	Indian horned owl	*Bubo bubo*
065	Mottled wood owl	*Strix ocellata*
066	Spotted owlet	*Athene brama*

PODARGIDAE

067	Ceylon frogmouth	*Batrachostomus moniliger*

APODIDAE

068	White rumped spinetail swift	*Chaetura sylvatica*
069	Brown throated spinetail swift	*Chaetura gigantea*
070	Crested tree swift	*Hemiprocne longipennis*
071	House swift	*Apus affinis*
072	Alpine swift	*Micropus melba*
073	Palm swift	*Cypsiurus parvus*

TROGONIDAE

074	Malabar trogon	*Harpactes fasciatus*

ALCEDINIDAE

075	Pied kingfisher	*Ceryle rudis*
076	Common kingfisher	*Alcedo atthis*
077	Stork billed kingfisher	*Pelargopsis capensis*
078	White breasted kingfisher	*Halcyon smyrnensis*

MEROPIDAE

079	Chestnut headed bee-eater	*Merops leschenaulti*
080	Small green bee-eater	*Merops orientalis*

CORACIIDAE

081	Indian roller	*Coracias benghalensis*
082	Broadbilled roller	*Eurystomus orientalis*

UPUPIDAE

083	Hoopoe	*Upupa epops*

BUCEROTIDAE

084	Common grey hornbill	*Tockus birostris*
085	Malabar grey hornbill	*Tockus griseus*
086	Great Indian hornbill	*Buceros bicarnis*

CAPITONIDAE

087	Small green barbet	*Megalaima viridis*
088	Ceylon green barbet	*Megalaima zeylonica*
089	Crimson breasted barbet	*Megalaima haemacephala*

PICIDAE

090	Speckled piculet	*Picumnus innominatus*
091	Rufous woodpecker	*Micropternus brachyurus*
092	Lesser goldenbacked woodpecker	*Dinopium bengalensis*
093	Blackbacked woodpecker	*Chrysocolaptes festivus*
094	Pigmy woodpecker	*Dendrocopos nanus*
095	Mahratta woodpecker	*Picoides mahrattensis*

PITTIDAE

096	Indian pitta	*Pitta brachyura*

ALAUDIDAE

097	Ashy crowned finch lark	*Eremopterix grisea*
098	Rufous tailed finch lark	*Ammomanes phoenicurus*
099	Ceylon bush lark	*Mirafra assamica*
100	Small Indian sky lark	*Alauda gulgula*
101	Syke's crested lark	*Galerida deva*

HIRUNDINIDAE

102	Dusky cragmartin	*Hirundo concolor*
103	Striated swallow	*Hirundo daurica*
104	Eastern swallow	*Hirundo rustica*
105	Wire tailed swallow	*Hirundo smithii*

LANIIDAE

106	Brown shrike	*Lanius ciristatus*
107	Bay backed shrike	*Lanius vittatus*

ORIOLIDAE

108	Golden oriole	*Oriolus oriolus*
109	Black fronted oriole	*Oriolous xanthornus*

DICRURIDAE

110	Black drongo	*Dicrurus adsimilis*
111	White bellied drongo	*Dicrurus caerulescens*
112	Grey drongo	*Dicrurus leucophaeus*
113	Bronzed drongo	*Dicrurus aeneus*
114	Racket tailed drongo	*Dicrurus remifer*

ARTAMIDAE

115	Ashy swallow shrike	*Artamus fuscus*

STURNIDAE

116	Common mynah	*Acridotheres tristis*
117	Hill mynah	*Gracula religiosa*

CORVIDAE

118	House crow	*Corvus splendens*
119	Jungle crow	*Corvus macrorhynchos*
120	Southern treepie	*Dendrocitta leucogastra*
121	Indian treepie	*Dendrocitta vagabunda*

CAMPEPHAGIDAE

122	Malabar wood shrike	*Tephrodornis gularis*
123	Common wood shrike	*Tephrodornis pondicerianus*
124	Large cuckoo shrike	*Coracina novaehollandiae*
125	Blackheaded cuckoo shrike	*Coracina melanoptera*
126	Small minivet	*Pericrocotus cinnamomeus*
127	Orange minivet	*Periocrotus flammeus*

IRENIDAE

128	Common iora	*Aegithina tiphia*
129	Fairy bluebird	*Irena puella*
130	Jerdon's chloropsis	*Chloropsis cochinchinensis*
131	Goldfronted chloropsis	*Chloropsis aurifrons*

PYCNONOTIDAE

132	Ruby throated bulbul	*Pycnonotus melanicterus*
133	Yellow browed bulbul	*Hypsipetes indicus*
134	White browed bulbul	*Pycnonotus luteolus*
135	Red vented bulbul	*Pycnonotus cafer*
136	Red whiskered bulbul	*Pycnonotus jocosus*

MUSCICAPIDAE

137	White throated babbler	*Dumetia hyperythra*
138	Yellow eyed babbler	*Chrysomma sinense*
139	Black capped babbler	*Phopocichla atriceps*
140	Rufous babbler	*Turdoides subrufus*
141	Jungle babbler	*Turdoides straitus*
142	White headed babbler	*Turdoides affinus*
143	Brown flycatcher	*Muscicapa latirostris*
144	Layerd's flycatcher	*Muscicapa muttui*
145	Rufous tailed flycatcher	*Muscicapa ruficauda*
146	Tickell's blue flycatcher	*Muscicapa tickelliae*
147	Blue throated flycatcher	*Muscicapa rubeculoides*
148	Paradise flycatcher	*Terpsiphone paradisi*
149	Verditer flycatcher	*Muscicapa albicaudata*
150	Coorg wren warbler	*Prinia hodgosoni*
151	Ashy wren warbler	*Prinia socialis*
152	Plain wren warbler	*Prinia subflava*
153	Tailor bird	*Orthotomus sutorius*
154	Streaked fantail warbler	*Cisticola juncidis*
155	Greenish leaf warbler	*Phylloscopus trochiloides*
156	Magpie robin	*Copsychus saularis*
157	Indian robin	*Saxicoloides fulicata*
158	Pied bushchat	*Saxicola caprata*
159	Blackbird	*Turdus merula*
160	Blue headed rock thrush	*Monticola cinclorhynchus*
161	Malabar whistling thrush	*Myiophoneus horsfieldii*

PARINAE

162	Grey tit	*Parus major*

MOTACILLIDAE

163	Malay paddy pipit	*Anthus novaeseelandiae*
164	Yellow wagtail	*Motacilla flava*
165	Grey wagtail	*Motacilla caspica*
166	White wagtail	*Motacilla alba*
167	Large pied wagtail	*Motacilla madera*
168	Forest wagtail	*Motacilla indica*

DICAEIDAE

169	Tickell's flowerpecker	*Dicaeum erythrorhynchos*

NECTARINIIDAE

170	Purple sunbrid	*Nectarinia asiatica*
171	Purple rumped sunbird	*Nectarinia zeylonica*
172	Loten's sunbird	*Nectarinia lotenia*
173	Little spiderhunter	*Arachnothera longirostris*

PLOCEIDAE

174	Yellow throated sparrow	*Petronia zanthocollis*
175	Spotted munia	*Lonchura punctulata*
176	White backed munia	*Lonchura striata*
177	Black headed munia	*Lonchura malacca*
178	House Sparrow	*Passer domesticus*

The White Breasted and Black Capped Kingfishers

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Perumathura is a small esturay of a brackish lake 29 km north of Trivandrum. In winter, it attracts waders (usually sandpipers, sandplovers and Gulls) in small numbers.

While observing sandplovers, a kingfisher with cobalt blue wings, dark shoulder patch, black head and coral red bill caught my attention. It was the Black capped kingfisher *Halcyon pileata* known for its tendency to wander from the seashore to hilly streams. It perched facing the sea on a wooden pole erected for fishing. Later a white breasted kingfisher *Halcyon smyrnensis* appeared from the far end of the lake and landed on another pole. The feeding style of the 'brothers' seemed different and worth noting.

The white breasted species was busy catching small fish which were in plenty on the lake right near the water surface. But the black capped was never seen fishing during my observation. After resting a longer period it flew towards the shoreline, catching a crab quickly after landing on the sandbar and returned to the same pole. It swallowed the prey with little ease, respecting size of the prey. Later the Black capped performed some stooping like flight towards the sandplovers with some ringing call *tr..r..r..tr..r..r* (reminiscent of Threetoed woodpecker). After chasing them some distance away, it caught a crab and returned to one of the poles. Now a House crow appeared on the scene attempting to snatch the prey, but was unsuccessful. The kingfisher chased the sandplovers more or less in the same manner occasionally, the purpose of which is unknown. The persistent mobbing by the crows made the kingfisher fly with shrill laughing notes (similar to white breasted) and it disappeared behind the coconut groves. Interestingly, the crows never attempted to mob or follow the white breasted species.

Birds of Panidihing

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Panidihing is the the name of the uncharted and unprotected wetlands situated in Sibsagar dist. of Assam, at the south bank of Brahmaputra, east to the confluence of the tributary Disang with the main river. This 60-70 sq km area (27°IO'N X 94°35'E) is regularly inundated by summer monsoon flood. The vast flood plains of the winter contain six interconnected freshwater lakes, one rivulet and few minor channels.

Panidihing is a veritable paradise for birdwatchers. Along with the local population of avifauna of 37 families, the migrating flock arriving from the North in Sept/Oct each year fills the wetland system throughout the winter. More than 60 species of birds are identified by the compiler of this report, but the number could cross the 200 mark in the good hands of an ornithologist.

The strip of swampy reed jungle of the northern border comprises chiefly of *Arundo donax* and plants of the Alpina genus, but *Vetevari zyganoids* and *Saccharum sponteneum* are also common, whereas *Phragmites karka* is becoming rarer possibly as a result of active collection by near-by villagers. Thorny vines wind around these tall grasses and during the summer monsoon it becomes impenetrable with thick clumps of *Eichornia crassipes*. The area is the principal roosting zone of cormorants, herons, egrets, kingfishers, doves and mynas.

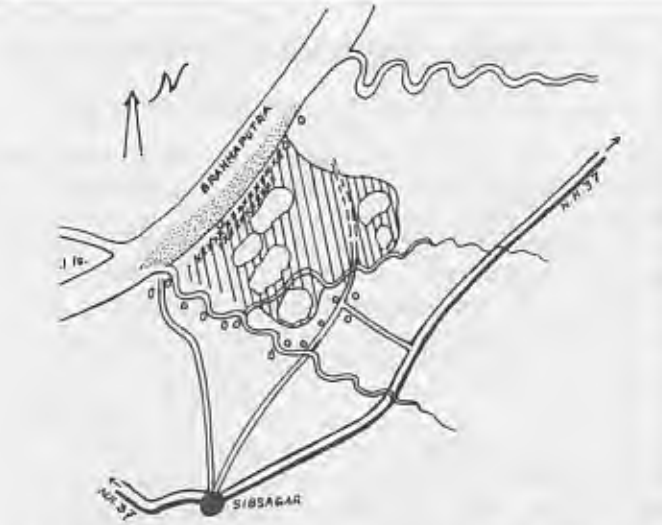
In this thicket, a heronry is formed by 400-500 pairs of birds every summer. Cattle Egret, Pond Heron, Chinese Pond Heron, Little Egret, Purple Heron, Grey Heron, Little cormorant and Glossy Ibis are the breeding species. *Arundo donax* and *Phragmites karka* are mostly preferred for nest building. The presence of a breeding colony of *Corvus splendens* not far away makes investigation hazardous for the eggs and chicks of the breeding waterfowl.

This mixed heronry is under severe pressure from the local tribes who collect the eggs and immature birds for food.

The remaining area of vast open wetland shrinks in the dry winter and becomes compartmentalised into grasslands and freshwater lakes. Snipes are common in the grasslands. Flocks of Barheaded Goose, numbering 200-400, occasionally up to 800, are seen feeding in the soft grasses throughout the day. Many puddles of ankle deep water are present in different stages of drying and these invite shore-birds of many species. On 18.1.91, during Mid Winter Count, 12 Avocets (a rare visitor to this region) were observed actively feeding in such a puddle.

The vegetation of the freshwater systems includes White Water Lily, Water Chestnut, aquatic ferns and Ipomoea and Polygonum species and submerged water plants. *Eichornia crassipes*, though a problem weed, is successfully utilised by fishermen in localising fish.

The open floodplains and the freshwater lakes are utilised not only by birds but also by men and their animals. The grassland becomes the grazing field for about 800 heads of cattle and the water bodies are extensively fished. Except Fulai Dighali, all other freshwater lakes are leased to fishermen either by the Revenue or the Forest dept of Assam. However, overfishing has affected the size and number of catch and this has encouraged the fishermen to



Map of Panidihing
(Not according to scale)

undertake the most ruthless type of fishing like pumping out the area dry. This will kill the ecosystem in the near future.

Till about 5 years ago Panidihing attracted hunters from near and far. A bag of 50 birds was not uncommon. Apart from direct hit this unchecked killings frightened the birds and their population dwindled. As for example, Geylag Goose was not sighted in 1988-89. However, the Forest dept was activated by media reports of ruthless killings and the slaughter has now stopped. Most of the species has returned and their number is steadily increasing. At present ('94), unheard of birds like the Common Crane has also visited Panidihing.

But since 2 years large scale poison baiting with 'FURADON' took anchorage in Panidihing which has almost wiped out the Raptor population, necessitating the compilation of this report in a hurry. Powerful birds of prey like the Greyheaded Fishing Eagle, Pallas's Fishing Eagle, Crested Serpent Eagle and Brahminy Kite are no more spotted in this wetland. The fact that the midwinter census team, in Jan'94 failed to locate a single Adjutant Stork is an indication of the seriousness of the problem.

Potentialities for developing a Bird Sanctuary in the core area of the wetland, keeping aside a wide buffer zone does exist in Panidihing as 30% of the land is under the jurisdiction of the Forest Dept. of Assam and the dept in fact proposed to develop a Bird Sanctuary way back in 1985 ; but for reasons best known to the top brasses of the dept, no concrete steps have followed so far. Sadly, not even a scientific map is to be found in the local office of the dept.

The following check-list of Panidihing birds is a result of more than 20 field trips in different seasons from 1988 to '94. The lack of nocturnal birds shouldn't indicate their absence, but only my inability to stay overnight.

I'm grateful to Dr N. Kakoty, retd Dean of Assam Agricultural University for helping in identification of floral species. I'm thankful to Mr P.K. Saikia of Guwahati for guiding me in identification of some troublesome shore-birds. Thanks are also due to Mr. M. Ali, Forest Guard for helping in my birdwatching.

CHECKLIST OF BIRDS OF PANIDIHING

(Abbreviations used : A - abundant, C - common, U - uncommon, R - rare, M - migratory and R/M - resident but supplemented with migrant population)

Family Podicipedidae			
001	Great Crested Grebe	*Podiceps cristatus*	U M
002	Little Grebe	*Podiceps ruficollis*	U
Family Pelecanidae			
003	Spotbilled Pelican	*Pelecanus philippensis*	R
Family Phalacrocoracidae			
004	Indian Shag	*Phalacrocorax fuscicollis*	R
005	Little Cormorant	*Phalacrocorax niger*	A
006	Oriental Darter-	*Anhinga melanogaster*	R
Family Ardeidae			
007	Grey Heron	*Ardea cinerea*	U
008	Purple Heron	*Ardea purpurea*	U
009	Indian Pond Heron	*Ardeola grayii*	A
010	Chinese Pond Heron	*Ardeola bacchus*	U
011	Cattle Egret	*Bubulcus ibis*	C
012	Large Egret	*Ardea alba*	R
013	Intermediate Egret	*Egretta intermedia*	C
014	Little Egret	*Egretta garzetta*	A
015	Night Heron	*Nycticorax nycticorax*	C
016	Chestnut Bittern	*Ixobrychus cinnamomeus*	R
017	Yellow Bittern	*Ixobrychus sinensis*	R
Family Ciconiidae			
018	Openbill Stork	*Anastomus oscitans*	C
019	Blacknecked Stork	*Ephippiorhynchus asiaticus*	R
020	Adjutant Stork	*Leptoptilos dubius*	U
021	Lesser Adjutant Stork	*Leptoptilos javanicus*	U
Family Threskiornithidae			
022	Glossy Ibis	*Plagadis falcinellus*	C
Family Anatidae			
023	Whitefronted Goose	*Anser albifrons*	R M
024	Greylag Goose	*Anser anser*	C M
025	Barheaded Goose	*Anser indicus*	A M

026	Lesser Whistling Teal	*Dendrocygna javanica*	A
027	Large Whistling Teal	*Dendrocygna bicolor*	C
028	Ruddy Shelduck	*Tadorna ferruginea*	C M
029	Common Shelduck	*Tadorna tadorna*	R M
030	Pintail Duck	*Anas acuta*	C M
031	Common Teal	*Anas crecca*	A M
032	Spotbilled Duck	*Anas poecilorhyncha*	A R/M
033	Mallard	*Anas platyrhynchos*	U M
034	Gadwall	*Anas strepera*	U M
035	Wigeon	*Anas penelope*	C M
036	Garganey	*Anas querquedula*	U M
037	Shoveller	*Anas clypeata*	C M
038	Redcrested Pochard	*Netta rufina*	R M
039	Common Pochard	*Aythya ferina*	U M
040	Ferruginous Duck	*Aythya nyroca*	R M
041	Boer's Pochard	*Aythya baeri*	R M
042	Tufted Duck	*Aythya fuligula*	C M
043	Cotton Teal	*Nettapus coromandelianus*	R

Family Accipitridae

044	Blackwinged Kite	*Elarnus caeruleus*	R
045	Pariah Kite	*Milvus migrans govinda*	U
046	Brahminy Kite	*Haliastur indus*	C
047	Pallas's Fishing Eagle	*Haliaeetus leucoryphus*	U
048	Greyheaded Fishing Eagle	*Ichthyophaga ichthyaetus*	U
049	Cinereous Vulture	*Aegypius monachus*	U
050	Himalayan Griffon Vulture	*Gyps himalayensis*	U M (?)
051	Longbilled Vulture	*Gyps indicus*	U
052	Whitebacked Vulture	*Gyps bengalensis*	C
053	Pied Harrier	*Circus melanoleucos*	U M (?)
054	Marsh Harrier	*Circus aeruginosus*	U M
055	Crested Serpent Eagle	*Spilornis cheela*	R
056	Osprey	*Pandion haliaetus*	U M

Family Falconidae

057	Whitelegged Falconet	*Microhierax melanoleucos*	U
058	Falcon - unidentified		

Family Phasianidae

059	Swamp Patridge	*Francolinus gularis*	U
060	Whitebreasted Waterhen	*Amaurornis phoenicurus*	U
061	Water Cock	Gallicrex cinerea	R
062	Moorhen	*Gallinula chloropus*	U
063	Purple Moorhen	*Porphyrio porphyrio*	A
064	Coot	*Fulica atra*	C M

Family Gruidae

065	Common Crane	*Grus grus*	R M

Family Jacanidae

066	Pheasant - tailed Jacana	*Hydrophasianus chirurgus*	U
067	Bronzewinged Jacana	*Metopidius indicus*	C

Family Recurvirostridae

068	Blackwinged Stilt	*Himantopus himantopus*	C R/M
069	Avocet	*Recurvirostra avocetta*	R M

Family Charadriidae

070	Lapwing	*Vanellus vanellus*	C M
071	Greyheaded Lapwing	*Vanellus cinereus*	C M
072	Redwattled Lapwing	*Vanellus indicus*	C
073	Spurwinged Lapwing	*Vanellus spinosus*	U
074	Grey Plover	*Pluvialis sqatarola*	C M
075	Pacific Golden Plover	*Pluvialis fulva*	C M
076	Little Ringed Plover	*Charadrius dubius*	R M
077	Whimbrel	*Numenius phaeopus*	U M
078	Curlew	*Numenius arquata*	R M
079	Blacktailed Godwit	*Limosa limosa*	U M
080	Redshank	*Tringa totanus*	R M
081	Spotted Redshank	*Tringa erythropus*	U M
082	Greenshank	*Tringa nebularia*	R M
083	Marsh Sandpiper	*Tringa stagnatilis*	U M
084	Common Sandpiper	*Actitis hypoleucos*	C M
085	Green Sandpiper-	*Tringa ochropus*	U M
086	Fantail Snipe	*Gallinago gallinago*	C M
087	Eastern Knot	*Calidris tenuirostris*	R M
088	Little Stint	*Calidris minuta*	R M
089	Temminck's Stint	*Calidris temminckil*	UM

Family Laridae

090	Brownheaded Gull	*Larus brunnicephalus*	C M
091	Blackheaded Gull	*Larus ridibundus*	C M
092	River Tern	*Sterna aurantia*	U

Family Columbidae

093	Yellowlegged Green Pigeon	*Treron phoenicoptera*	U
094	Pintailed Green Pigeon	*Treron apicauda*	U
095	Rufous Turtle Dove	*Streptopelia orientalis*	R
096	Spotted Dove	*Streptopelia chinesis*	C

Family Psittacidae

097	Large Indian Parakeet	*Psitacula eupatria*	R
098	Roseringed Parakeet	*Psitacula krameri*	C

Family Cuculidae

099	Common Hawk Cuckoo	*Cuculus varius*	U M
100	Indian Cuckoo	*Cuculus micropterus*	U M
101	Rufousbellied Plaintive Cuckoo	*Cacomantis merulinus*	R M
102	Koel	Eudynamys scolopacea	C M

Family Apodidae

103	Swift	*Apus apus*	U M
104	House Swift	*Apus affinis*	U
105	Palm Swift	*Cypsiurus parvus*	C

Family Alcedinidae			
106	Lesser Pied Kingfisher	*Ceryle rudis*	C
107	Small Blue Kingfisher	*Alcedo atthis*	C
108	Storkbilled Kingfisher	*Pelargopsis capensis*	R
109	Whitebreasted Kingfisher	*Halcyon smyrnensis*	C
Family Meropidae			
110	Small Green Bee-eater	*Morops orientalis*	R
Family Coraciidae			
111	Indian Roller	*Coracias benghalensis*	U
Family Upupidae			
112	Hoopoe	*Upupa epops*	U
Family Capitonidae			
113	Lineated Barbet	*Megalaima lineata*	U
114	Bluethroated Barbet	*Megalaima asiatica*	U
115	Crimsonbreasted Barbet	*Megalaima haemacephala*	U
Family Picidae			
116	Fulvousbreasted Pied Woodpecker	*Picoides macei*	R
Family Alaudidae			
117	Bengal Bush Lark	*Mirafra assamica*	R
Family Hirundinidae			
118	Collared Sand Martin	*Riparia riparia*	C
119	Swallow	*Hirundo rustica*	A M
120	Wiretailed Swallow	*Hirundo smithii*	U M
121	Redrumped Swallow	*Hirundo daurica*	R M
122	House Martin	*Delichon urbica*	U M
Family Laniidae			
123	Grey Shrike	*Lanius excubitor*	U M
124	Chestnutrumped Shrike	*Lanius collurioides*	U M
125	Greybacked Shrike	*Lanius tephronotus*	C M
126	Rufousbacked Shrike	*Lanius schach*	R
Family Oriolidae			
127	Blackheaded Oricle	*Oriolus xanthornus*	U
Family Dicruridae			
128	Black Drongo	*Dicrurus adsimilis*	C
Family Sturnidae			
129	Greyheaded Myna	*Sturnus malabaricus*	U
130	Pied Myna	*Sturnus contra*	A
131	Common Myna	*Acridotheres tristis*	A
132	Bank Myna	*Acridotheres ginginianus*	U
133	Jungle Myna	*Acridotheres fuscus*	A
134	Orangebilled Jungle Myna	*Acridotheres javanicus*	R
Family Corvidae			
135	Tree Pie	*Dendrocitta vagabunda*	R
136	House Crow	*Corvus splendens*	A
137	Jungle Crow	*Corvus macrorhynchos*	C
Family Pycnonotidae			
138	Redwhiskered Bulbul	*Pycnonotus jocosus*	R
139	Redvented Bulbul	*Pycnonotus cafer*	C
Family Muscicapidae			
140	Marsh Spotted Babbler	*Pellorneum palustre*	R
141	Striated Babbler	*Turdoides earlei*	U
142	Longtailed Grass Warbler	*Prinia burnesii*	U
143	Striated Marsh Warbler	*Megalurus palustris*	C
144	Great Reed Warbler	*Acrocephalus stentoreus*	R
145	Magpie Robin	*Copsychus saularis*	C
146	Black Redstart	*Phoenicurus ochruros*	U M
147	Stone Chat	*Saxicola torquata*	C M
Family Paridae			
148	Grey Tit	*Parus major*	U
Family Motacillidae			
149	Meadow Pipit	*Anthus pratensis*	U M
150	Paddyfield Pipit	*Anthus novaeseelandiae*	C R/M
151	Brown Rock Pipit	*Anthus similis*	R M
152	Alpine Pipit	*Anthus spinoletta*	R M
153	Yellow Wagtail	*Motacilla flava*	C M
154	Yellowheaded Wagtail	*Motacilla citreola*	C M
155	Grey Wagtail	*Motacilla cineria*	C M
156	Pied Wagtail	*Motacilla alba*	A M
157	Large Pied Wagtail	*Motacilla maderaspatensis*	U
Family Zosteropidae			
158	White Eye	*Zosterops palpebrosa*	U
Family Ploceidae			
159	House Sparrow	*Passer domesticus*	A
160	Tree Sparrow	*Passer montanus*	C
161	Baya	*Ploceus philippinus*	U
162	Finn's Baya	*Ploceus megarhynchus*	R
163	Spotted Munia	*Lonchura punctulata*	C
164	Blackheaded Munia	*Lonchura malacca*	R

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Birds of Jubilee Hills National Park

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On behalf of our society (Society for Nature Conservation, SONACO, Hyderabad) we would like to share some very good news with you. Recently (on March 19th 1994) an area of about 400 acres known as the Chiran Park, in Jubilee Hills area of Hyderabad, was declared by the Andhra Pradesh Government as the Jubilee Hills National Park. This was a part of the former Shaikpet Village which was part of a Reserved Forest. The Reserved Forest was denotified some time in early 1960's and a part of the area was then handed over for development of a Housing Colony and other Urban uses, etc.

This National Park is an example of deciduous forest type typically found in the Deccan Plateau, now everywhere under threat of destruction. The extent of the National Park comprises the land enclosed within the wall built by the former Nizam of Hyderabad which was the Chiran Palace area. Despite prolific development of the area around it, the National Park area has retained its essential character.

The members of SONACO had actively pursued the issue of declaring the Park as a National Park in the past several months. I am enclosing a checklist of the birds of this area identified by the members of the SONACO over a period of about $2^1/_2$ years. This was done mostly in the 100 acres of the park that was taken over by the Forest Department in 1991. This identification process is still not complete and only those species and varieties that have been identified beyond reasonable doubt have been included. We are certain that many more species can be identified in the rest of the 300 acres of the park which are under study in detail by us.

Checklist of Birds of the Jubilee Hills National Park : SONACO

1.	Little Cormorant	*Phalacrocorax niger*
2.	Grey Heron	*Ardea cinerea rectirostris*
3.	Pond heron	*Ardeola grayii grayii*
4.	Cattle Egret	*Bubulcus ibis coromandus*
5.	Median Egret	*Egretta intermedia intermedia*
6.	Little Egret	*Egretta garzetta garzetta*
7.	Night Heron	*Nycticorax nycticorax nycticorax*
8.	White Ibis	*Threskiornis aethiopica melanocephala*
9.	Black Ibis	*Pseudibis papillosa papillosa*
10.	Lesser Whistling Teal	*Dendrocygna Javanica*
11.	Spotbill Duck	*Anas poecilorhyncha poecilorhyncha*
12.	Cotton Teal	*Nettapus coromandelianus coromandelianus*
13.	Black winged kite	*Elanus caeruleus vociferus*
14.	Parian kite	*Milvus migrans govinda*
15.	Blackeared Kite	*Milvus migrans lineatus*
16.	Indian Shikra	*Accipiter badius dussumieri*
17.	White-eyed Buzzard-Eagle	*Butastur teesa*
18.	Indian Whitebacked Vulture	*Gyps bengalensis*
19.	Scavanger Vulture	*Neophron percnopeterus* sub.sp
20.	Marsh Harrier	*Circus aeruginosus aeruginosus*
21.	European Kestrel	*Falco tinnunculus tinnunculus*
22.	South Indian Grey Partridge	*Francolinus pondicerianus pondicerianus*
23.	Rain Quail	*Coturnix coromandelica*
24.	Bluebreasted Quail	*Coturnix chinensis chinensis*
25.	Jungle Bush Quail	*Perdicula asiatica asiatica*
26.	Indian Peafowl	*Pavo critatus*
27.	Coot	*Fulica atra atra*
28.	Redwattled Lapwing	*Valnellus indicus indicus*
29.	Yellow-wattled Lapwing	*Vanellus malabaricus*
30.	Little Ringed Plover	*Charadrius dubius curonicus*
31.	Marsh Sandpiper	*Tringa stagnatilis*
32.	Green Sandpiper	*Tringa ochropus*
33.	Common Sandpiper	*Tringa hypoleucos hypoleucos*
34.	Pintail Snipe	*Gallinago stenura*
35.	Indian Blackwinged Stilt	*Himantopus himantopus himantopus*
36.	Indian Stone Curlew	*Burhinus oedicnemus indicus*
37.	Indian Sandgrouse	*Pterocles exustus erlangeri*
38.	Indian Blue Rock Pigeon	*Columba livia intermedia*
39.	Indian Spotted Dove	*Streptopelia chinensis suratensis*
40.	Indian Little Brown Dove	*Streptopelia senegalensis cambayensis*
41.	Roseringed Parakeet	*Psittacula krameri manillensis*
42.	Sothern Blossom-headed Parakeet	*Psittacula cyanocephala cyanocephala*
43.	Pied Crested Cuckoo	*Clamator jacobinus serratus /Jacobinus*
44.	Common Hawk-Cuckoo	*Cuculus varius varius*
45.	Indian Plaintive Cuckoo	*Cacomantis passerinus passerinus*
46.	Koel	*Eudynamys scolopacea scolopacea*
47.	Sothern Crow-pheasant	*Centropus sinensis parroti*
48.	Indian Great Horned Owl	*Bubo bubo bengalensis*

49.	Southern Spotted Owlet	*Athene brama brama*
50.	Indian Jungle Nightjar	*Caprimulgus indicus indicus*
51.	Indian Little Nightjar	*Caprimulgus asiaticus asiaticus*
52.	Indian House Swift	*Apus affinis affinis*
53.	Indian Palm Swift	*Cypsiurus parvus balasiensis*
54.	Indian Pied Kingfisher	*Ceryle rudis leucomelanura*
55.	Indian Small Blue Kingfisher	*Alcedo atthis bengalensis*
56.	Whitebreasted Kingfisher	*Halcyon smyrnensis*
57.	Indian Small Green Bee-eater	*Merops orientalis orientalis*
58.	Southern Roller	*Coracias benghalensis indica*
59.	Ceylon Hoopoe	*Upupa epops ceylonensis*
60.	Crimsonbreasted Barbet	*Megalaima haemacephala indica*
61.	Indian Pitta	*Pitta brachyura brachyura*
62.	Redwinged Bush Lark	*Mirafra erythroptera erythropetra*
63.	Indian Rufoustailed Finch-Lark	*Ammomanes phoenicurus phoenicurus*
64.	Dusky Crag Martin	*Hirundo concolor concolor*
65.	Indian Wiretailed Swallow	*Hirundo smithii filifera*
66.	Indian Redrumped Swallow	*Hirundo daurica erythropygia*
67.	Indian Grey Shrike	*Lanius excubitor lahtora*
68.	Indian Baybacked Shrike	*Lanius vittatus vittatus*
69.	Rufousbacked Shrike	*Lanius schach erythronotus*
70.	Indian Golden Oriole	*Oriolus oriolus kundoo*
71.	Indian Blackheaded Oriole	*Oriolus xanthornus xanthornus*
72.	South Indian Black Drongo	*Dicrurus adsimilis macrocerus*
73.	Ashy Swallow-shrike	*Artamus fuscus*
74.	Brahminy Myna	*Sturnus pagodarum*
75.	Rosy Pastor	*Sturnus roseus*
76.	Indian Myna	*Acridotheres tristis tristis*
77.	Southern Tree Pie	*Dentrocitta vagabunda vernayi*
78.	Indian House Crow	*Corvus splendens splendens*
79.	Indian Large Cuckoo-Shrike	*Coracina novaehollandiae macei*
80.	Peninsular Indian Iora	*Aegithina tiphia deignani*
81.	Goldfronted Chloropsis	*Chloropsis aurifrons frontalis/insularis*
82.	Redvented Bulbul	*Pycnonotus cafer cafer*
83.	Whitebrowed Bulbul	*Pycononotus luteolus luteolus*
84.	Large Grey Babbler	*Turdoides Malcolmi*
85.	Whiteheaded Babbler	*Turdoides affinis affinis*
86.	Peninsular Indian Paradise Flycatcher	*Terpsiphone paradisi paradisi*
87.	Indian Blacknaped Monarch Flycatcher	*Hypothymis azurea styani*
88.	Streaked Fantail warbler	*Cisticola juncidis cursitans*
89.	Southern Ashy Wren-Warbler	*Prinia socialis socialis*
90.	Indian Tailor Bird	*Orthotomus sutorius guzurata*
91.	Indian Magpie-Robin	*Copsychus saularis saularis*
92.	Eastern Black Redstart	*Phoenicurus ochruros rufiventris*
93.	Indian Collared Bushchat	*Saxicola torquata indica*
94.	Burmese Pied Bushchat	*Saxicola caprata burmanica*
95.	Deccan Black Robin	*Saxicoloides fulicata intermedia*
96.	Indian Blue Rock Thrush	*Monticola solitarius pandoo*
97.	Indian Paddyfield Pipit	*Anthus novaeseelandiae rufulus*
98.	Grey Wagtail	*Motacilla cinerea cinerea*
99.	Indian White Wagtail	*Motacilla alba dukhunensis*
100.	Large Pied Wagtail	Motacilla maderaspatensis
101.	Tickell's Flowerpecker	*Dicaeum erythrorhynchos erythrorhynchos*
102.	Indian Purplerumped Sunbird	*Nectarinia zeylonica flaviventris*
103.	Indian Purple Sunbird	*Nectarinia asiatica asiatica*
104.	Indian White-eye	*Zosterops palpebrosa palpebrosa*
105.	Indian House Sparrow	*Passer domesticus indicus*
106.	Indian Yellowthroated Sparrow	*Petronia xanthocollis xanthocollis*
107.	Baya	*Ploceus philippinus philippinus*
108.	Red Munia	*Estrilda amandava amandava*
109.	Whitethroated Munia	*Lonchura malabarica malabarica*
110.	Indian Spotted Munia	*Lonchura punctulata punctulata*

■

Nest Box and "T" Shape Perching Pole for Common Barn Owl

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The common barn owl, *Tyto alba* , a potential predator of rodent pests, often takes its shelter for nesting / roosting in man-made structures like temple towers, unused rooms, unused barns, gaps or crevices present behind the statues

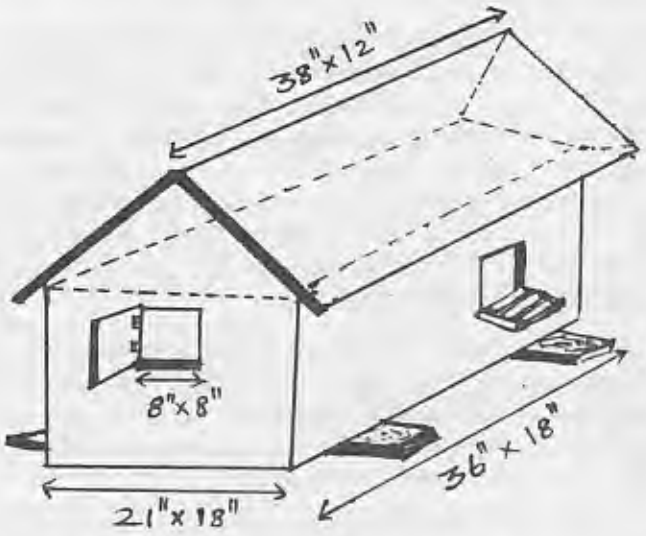

Fig.1. Nest box for common Barn Owl.

in the sanctum sanctorum and inner side of temple towers. Nests of barn owls have also been observed in the ground and in gaps present in the vehicles of gods (Neelanarayanan et al., 1993). The above observations indicate that barn owl population is limited by non-availability of normal nest sites viz., inner side of temple towers, unused barns and big tree holes. This prompted us to ponder and improve a nest box design of Colvin (1986) for the barn owl by bearing twin objectives in mind i.e., 1) to conserve and propagate their population and 2) to use this bird as a biological agent against rodent pests of agricultural importance. The details of the nest box design are given below.

An avian predator requires a perch site to sit on and observe for its prey. In course of time due to loss of perching sites around the fields the avian predators could not extend their service comfortably and keep our pests under control. This induced our fore-runners to use perching poles for the avian predators as was inferred from local men. Details of an improvised "T" shaped perching pole for the common barn owl are also given below.

Materials and general dimensions of the nest box (Fig.1). Half inch thick wooden planks of light weight may be used. Bottom - 36" x 18"; 2 ends - 21" x 18", Back & Front - 36" x 18"; Two roof panels - 38" x 12"; Two 8" x 8" holes must be cut in the nest box. One hole must be made in the front portion of the nest box towards the right hand side. This will act as an entrance way for the barn owl. The other hole must be made on one end, preferably on the left end with a hinged and securely latched door. This door can be used for inspecting the box occupied by barn owls. Both the holes must be made 6 inches above the bottom of the box. The entrance must have a perching platform of 8" x 8" size and should be fixed just below the entrance.

Two reapers (30" x 2") may be fixed below the bottom plank, which would be useful for mounting the box in trees.

The nest boxes can be installed in trees adjacent to the fields and in abandoned or undisturbed man made structures at 10-15 feet height. The box should be securely placed on the branches of trees or in the man made structures and tied with wire or rope.

The "T" shaped (Fig.2) perching poles could be of casuarina or any other wood which is economic and easily available. The height of the pole must be 4 to 6 feet and the cross bar must be of 2 feet length with 2 inch diameter. The perching poles can be planted in paddy fields and other crop fields as well, until the grains start to mature. Four to six poles can be planted near rodent damage sites in an acre of paddy and they should be 5 - 10 feet away from the bunds.

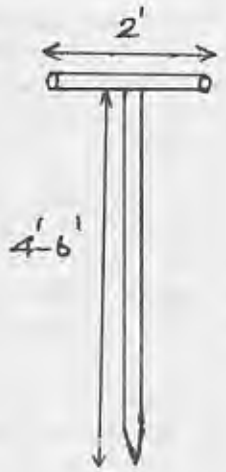

Fig. 2.
"T" Shaped perching pole

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First Birdwatching Camp at Corbett Tiger Reserve, May 1994

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Corbett Tiger Reserve lies in the foothills of the Himalayas and forms most of the watershed of the Ramganga River in Nainital and Pauri Garhwal Districts of Uttar Pradesh. The total protected area has recently been increased from 520 sq. km. (still the area of the National Park) to 1310 sq. km. by the inclusion of Reserved Forests around the periphery and Sonanadi Wildlife Sanctuary in the West. The majority of the Reserve is covered by sal-dominated mixed deciduous forests along with grasslands, riparian forest and bamboo jungle.

This majestic Reserve has always been famous for its rich birdlife which consists of more than 500 species. Even so, the elusive charisma of the tiger has always overshadowed the importance of its phenomenally diverse birdlife both among tourists and Forest Department staff.

In order to popularise birdwatching among tourists, local students, forest department staff and others, the officials at Project Tiger organised a 5-day birdwatching camp based at Lohachaur (in buffer zone of the Reserve), from April 30 to May 5, 1994. The Camp was the first of its kind to be organised by a Forest Department and was a pioneering effort in many ways. The Forest Department was assisted in the organisation of the Camp by Kalpavriksh, an environmental group based in Delhi.

The objectives of the Camp were to initiate people into the art of birdwatching, expose them to the rich birdlife of the Reserve as well as to popularise the fact that it is possible to enjoy the diversity of Corbett Reserve in more ways than just through big mammal sightings, that too, only in the core zone of the Reserve.

The 22 participants were a mixed and diverse bunch. The group included forest guards of Corbett Tiger Reserve, school and college students from Delhi and Ramnagar, nature guides from Tiger Tops Corbett Lodge and professionals (including a bureaucrat, an engineer and a lawyer!) from Delhi. The resource persons included the expert birdwatching guide of Corbett, Mr. Harak Singh Aswal and two birdwatchers belonging to Kalpavriksh, Delhi. The enthusiasm amongst the participants was infectious and their diverse backgrounds made for enriching interaction. Several of the participants would now be able to use this training directly in their chosen vocation such as nature guiding, research work, monitoring and nature education in and around Corbett.

The chosen venue of the Camp was Lohachaur, a scenic spot surrounded by undisturbed forests, in the buffer zone of the Park. The Resthouse is located on the banks of the Mandal River which forms the northern boundary of the Reserve. Most of the birdwatching was done within a 7 km radius around Lohachaur. The walks ranged from 3 km to 7 km. everyday in different types of habitat around Lohachaur. The participants birdwatched along the rocky streambed of the Mandal River, in the mixed sal forests on the hills and in riparian forests. Some isolated patches of grassland and scrub along the river were also traversed.

The camp participants were treated to an amazing diversity of birdlife within four days. During this time 137 species (nearly 25% of the total bird diversity of Corbett) were recorded. The attached checklist details these species. Some of the prominent hill species were the redbilled blue magpie, bluewinged siva, whitethroated laughing thrush, Himalayan greyheaded fishing eagle, kaleej pheasant, slatyheaded parakeet, great hill barbet and longtailed nightjar. Other frequently seen forest species were the bluethroated barbet, broadbilled roller, great pied hornbill, longtailed nightjar, blacknaped green woodpecker, orangebellied chloropsis and the rufuousbellied babbler. The calls of the Indian cuckoo, great hill barbet, bluethroated barbet and red junglefowl provided soothing background music to the birdwatching activities.

The rocky streambeds proved to be extremely rewarding for birdwatching. Three species of forktails (Leschenault's, black-backed and spotted), storkbilled and Himalayan pied kingfishers, spurwinged plover and blue whistling thrushes were the major attractions in this zone.

Parts of the streambeds were flanked by thick vegetation and it was common to see whitethroated and whitecrested laughing thrushes foraging noisily in these areas, along with paradise flycatchers, blacknaped blue flycatchers, bluethroated flycatchers and yellowbacked sunbirds.

The pristine sal-dominated forests around the resthouse and on the steep hillsides were rich in insectivorous species some seen foraging in mixed hunting flocks. Among these were greycrowned pigmy woodpeckers, blacknaped green woodpeckers, pied flycatcher-shrike, chestnut-bellied nuthatch and longtailed minivets. The elusive longtailed broadbill was seen in this zone as were the spotwinged stare, the blackheaded yellow bulbul and the bluewinged siva.

The slightly more open forests along the river valleys had browneared bulbuls, fulvousbreasted pied woodpeckers and broadbilled rollers which were sighted commonly. Redbilled babblers and whitethroated fantail flycatchers were commonly seen feeding in the understorey. At particular vantage points along the the streambed raptors such as the rare redbreasted falconet and cinereous vulture were spotted.

The camp was a great success both in its objectives of enthusing people about birdwatching and proving that there is much, much more to a National Park such as Corbett than just the deer and the tiger. It also showed how effective and successful nature education can become with the active initiative and participation of the forest management and cooperation of NGO's and experienced birdwatchers amongst the public. This pioneering effort of the Forest Department of Corbett needs to be emulated in several other reserved forests and sanctuaries of the country. Hopefully the Corbett Park management itself should be able to organise several more camps in the near future with help from birdwatchers and NGO's from Delhi, Ramnagar and other areas.

LIST OF BIRD SPECIES SEEN DURING BIRDWATCHING CAMP, LOHACHAUR

Family Ardeidae : Herons, Egrets, Bitterns

1. Indian Roef Heron	*Egretta gularis*

Family Accipitridae : Hawks, Vultures etc.

1. Honey Buzzard	*Pernis ptilorhyncus*
2. Goshawk	*Accipiter gentilis*
3. Greater Spotted Eagle	*Aquila clanga (?)*
4. Pallas Fishing Eagle	*Haliaeetus leucoryphus*
5. Greyheaded Fishing Eagle	*Ichthyophaga ichthyaetus* *
6. Himalyan Greyheaded Fishing Eagle	*Ichthyophaga nana*
7. King Vulture	*Sarcogyps calvus*
8. Cinereous Vulture	*Aegypius monachus*
9. Egyptian Vulture	*Neophron percnopterus*
10. Crested Serpent Eagle	*Spilornis cheela*

Family Falconidae : Falcons

1. Redbreasted Falconet	*Microhierax caerulescens*

Family Phasianidae : Pheasants, Partridges & Quails

1. Black Partridge	*Francolinus francolinus*
2. Kaleej pheasant	*Lophura leucomelana*
3. Red Junglefowl	*Gallus gallus*
4. Common Peafowl	*Pavo cristatus*

Family Columbidae : Pigeons, Doves

1. Pintailed Green Pigeon	*Treron apicauda*
2. Greyfronted Green Pigeon	*Treron pompadora*
3. Yellowlegged Green Pigeon	*Treron phoenicoptera*
4. Green Imperial Pigeon	*Ducula aenea*
5. Blue Rock Pigeon	*Columba livia*
6. Rufous Turtle Dove	*Streptopelia orientalis*
7. Indian Ring Dove	*Streptopelia decaocto*
8. Spotted Dove	*Streptopelia chinensis*
9. Emerald Dove	*Chalcophaps indica*

Family Psittacidae : Parakeets

1. Blossomheaded Parakeet	*Psittacula cyanocephala*
2. Slatyheaded Parakeet	*Psittacula himalayana*

Family Cuculidae : Cuckoos

1. Large Hawk-Cuckoo	*Cuculus sparverioides (?)*
2. Common Hawk-Cuckoo	*Cuculus varius*
3. Indian Cuckoo	*Cuculus micropterus*
4. Drongo-Cuckoo	*Surniculus lugubris*
5. Crow-Pheasant	*Centropus sinensis*

Family Sttrigdae : Owls

1. Great Horned Owl	*Bubo bubo*

Family Caprimulgidae : Nightjars

1. Longtailed Nightjar	*Caprimulgus macrurus*
2. Common Indian Nightjar	*Caprimulgus asiaticus*
3. Franklin's Nightjar	*Caprimulgus affinis*

Family Apodidae : Swifts

1. Whiterumped Spinetail	*Chaetura sylvatica*
2. Crested Tree Swift	*Hemiprocne longipennis*

Family Alcedinidae : Kingfishers

1. Himalayan Pied Kingfisher	*Ceryle lugubris*
2. Common Kingfisher	*Alcedo atthis*
3. Storkbilled Kingfisher	*Pelargopsis capensis*
4. Whitebreasted Kingfisher	*Halcyon smyrnensis*

Family Meropidae : Bee-Eaters

1. Chestnutheaded Bee-Eater	*Merops leschenaulti*
2. Green Bee-Eater	*Merops orientalis*

Family Coraciidae : Rollers

1. Indian Roller	*Coracias benghalensis*
2. Broadbilled Roller	*Eurystomus orientalis*

Family Bucerotidae : Hornbills

1. Great Pied Hornbill	*Buceros bicornis*

Family Captionidae : Barbets

1. Great Hill Barbet	*Megalaima virens*
2. Large Green Barbet	*Megalaima zeylanica*
3. Bluethroated Barbet	*Megalaima asiatica*
4. Crimsonbreasted Barbet	*Megalaima haemacephala*

Family Picidae : Woodpeckers

1. Rufous Woodpecker	*Micropternus brachyurus*
2. Large Yellownaped Woodpecker	*Picus flavinucha*
3. Blacknaped Green Woodpecker	*Picus canus*
4. Lesser Goldenbacked Woodpecker	*Dinopium bengalense*
5. Himalayan Goldenbacked Three-Toed Woodpecker	*Dinopium shorii*
6. Fulvousbreasted Pied Woodpecker	*Picoides macei*
7. Yellowfronted Pied Woodpecker	*Picoides mahrattensis*
8. Greycrowned Pigmy Woodpecker	*Picoides canicapillus*

Family Eurylaimidae : Broadbills

1. Longtailed Broadbill	*Psarisomus dalhousiae*

Family Hirundinidae : Swallows

1. Redrumped Swallow	*Hirundo daurica*

Family Laniidae : Shrikes

1. Rufousbacked Shrike	*Lanius schach*

Family Oriolidae : Orioles

1. Golden Oriole	*Oriolus oriolus*
2. Blackheaded Oriole	*Oriolus xanthornus*

Family Dicruridae : Drongos

1. Black Drongo	*Dicrurus adsimilis*
2. Bronzed Drongo	*Dicrurus aeneus*
3. Haircrested Drongo	*Dicrurus hottentottus*

Family Sturnidae : Starlings, Mynas

1. Spottedwinged Stare	*Saroglossa spiloptera*
2. Greyheaded Myna	*Sturnus malabaricus*

3.	Brahminy Myna	*Sturnus pagodarum*
4.	Pied Myna	*Sturnus contra*
5.	Common Myna	*Acridotheres tristis*
6.	Jungle Myna	*Acridotheres fuscus*

Family Corvidae : Crows, Magpies, Jays

1.	Redbilled Blue Magpie	*Cissa erythrorhyncha*
2.	Himalayan Tree Pie	*Dendrocitta formosae*
3.	House Crow	*Corvus splendens*
4.	Jungle Crow	*Corvus macrorhynchos*

Family Campephagidae : Cuckoo-Shrikes, Minivets

1.	Pied Flycatcher-Shrike	*Hemipus picatus*
2.	Large Cuckoo-Shrike	*Coracina novaehollandiae*
3.	Scarlet Minivet	*Pericrocotus flammeus*
4.	Shortbilled Minivet	*Pericrocotus brevirostris*
5.	Longtailed Minivet	*Pericrocotus ethologus*
6.	Rosy Minivet	*Pericrocotus roseus*

Family Irenidae: Ioras, Leafbirds, Fairy Bluebird

1.	Goldenfronted Chloropsis	*Chloropsis aurifrons*
2.	Orangebellied Chloropsis	*Chloropsis hardwickii*

Family Pycnonotidae : Bulbuls

1.	Blackheaded Yellow Bulbul	*Pycnonotus melanicterus*
2.	Redwhiskered Bulbul	*Pycnonotus jocosus*
3.	Whitecheeked Bulbul	*Pycnonotus leucogenys*
4.	Redvented Bulbul	*Pycnonotus cafer*
5.	Browneared Bulbul	*Pycnonotus flavalus*
6.	Black Bulbul	*Pycnonotus madagascariensis*

Family Muscicapidae : Babblers, Flycatchers, Thrushes etc.

1.	Rustycheeked Scimitar Babbler	*Pomatorhinus erythrogenys*
2.	Redbilled Babbler	*Stachyris pyrrhops*
3.	Rufousbellied Babbler	*Dumetia hyperythra*
4.	Jungle Babbler	*Turdoides striatus*
5.	Whitethroated Laughing Thrush	*Garrulax albogularis*
6.	Whitecrested Laughing Thrush	*Garrulax leucolophus*
7.	Redbilled Leiothrix	*Leiothris lutea (?)*
8.	Bluewinged Siva	*Minla cyanouroptera*
9.	Little Pied Flycatcher	*Muscicapa westermanni*
10.	Small Niltava	*Muscicapa magrigoriae*
11.	Bluethroated Flycatcher	*Muscicapa rubeculoides*
12.	Tickell's Blue Flycatcher	*Muscicapa tickelliae*
13.	Greyheaded Flycatcher	*Culicicapa ceylonensis*
14.	Whitethroated Fantail Flycatcher	*Rhipidura albicollis*
15.	Paradise Flycatcher	*Terpsiphone paradisi*
16.	Blacknaped Flycatcher	*Hypothymis azurea*
17.	Greyfaced Leaf Warbler	*Phylloscopus maculipennis*
18.	Greyheaded Flycatcher-Warbler	*Seicercus castaniceps*
19.	Himalayan Rubythroat	*Erithacus pectoralis*
20.	Magpie-Robin	*Copsychus saularis*
21.	Shama	*Copsychus malabaricus*
22.	Black Redstart	*Phoenicurus ochruros*
23.	Blackbacked Forktail	*Enicurus immaculatus*
24.	Leschenault's Forkstail	*Enicurus leschenaulti*
25.	Spotted Forktail	*Enicurus maculatus*
26.	Stone Chat	*Saxicola torquata*
27.	Pied Buschat	*Saxicola caprata*
28.	Blueheaded Rock Thrush	*Monticola cinclorhynchus*
29.	Blue Whistling Thrush	*Myiophoneus caeruleus*
30.	Orangeheaded Ground Thrush	*Zoothera citrina*
31.	Tickell's Thrush	*Turdus unicolor*

Family Paridae : Tits

1.	Grey Tit	*Parus major*
2.	Yellowcheeked Tit	*Parus xanthogenys*

Family Sittidae: Nuthatches, Creepers

1.	Chestenutbellied Nutchatch	*Sitta castanea*
2.	Velvetfronted Nuthatch	*Sitta frontalis*

Family Motacillidae: Pipits, Wagtails

1.	Yellow Wagtail	*Motacilla flava*
2.	Grey Wagtail	*Motacilla cinerea*
3.	Large Pied Wagtail	*Motacilla maderaspatensis*

Family Nectariniidae: Sunbirds, Spiderhunters

1.	Purple Sunbird	*Nectarinia asiatica*
2.	Yellowbacked Sunbird	*Aethopyga siparaja*

Family Zosteropidae: White-eyes

1.	White-Eye	*Zosterops palpebrosa*

Family Ploceidae: Weaverbirds, Sparrows

1.	Yellowthroated Sparrow	*Petronia xanthocollis*

Family Fringillidae: Finches

1.	Chaffinch	*Fringilla coelebs*

Family Emberizidae: Buntings

1.	Crested Bunting	*Melophus lathami*

KEY :

* : Seen outside Lohachaur/Mandal Valley

? : Identification unconfirmed

NOTE : The order of birds is taken from Ali, S. & Ripley, S.D., 1983, A Pictorial Guide to the Birds of the Indian Subcontinent

Check List of the Birds of Longwood Shola - Kotagiri

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The Longwood shola is renowned as a living cathedral of Kotagiri. When entering in this evergreen forest, any one can hear the hearthrob soprano of Nilgiri laughing thrush. *Pee-Ko-Ko.... Pee-Ko-Ko,* This pleasant and spirited laughing call is echoing all over forest of dense and towering vegetation. "What a high pitch from a small bird". This surprise will strike the mind of a bird watcher. The name "Longwood shola" was translated from Badaga language by the British people. The forest name in badaga language is Dodda sholai (Dodda sholai means long wood). Really it is unlike the shola forest of the grass land in Mukurti National Park and other areas in Nilgiris.

This natural forest in Kotagiri range is controlled under the forest department of Nilgiris North division. This forest is situated above the mean sea level at 6511 feet and very near to Kotagiri town. This is the land of many species of trees and plants and home of reptiles, animals and birds. There are the perennial water resources in the middle of the forest. This forest and adjoining areas are surrounded by tea, coffee and some forest patches in the escarpments of eastern slopes in Nilgiris. In this check list, we have recorded many species of birds not only in the longwood shola. From 1988 March to 1993 March, we have watched and recorded the birds, within an area of 20 km radius, from Longwood shola in different habitats at various elevations from above the mean sea level at 6511 feet to 500 feet.

A high rate of insecticides and pesticides are used in the neighbouring tea and coffee plantations. So nowadays we are recording very few species with poor population in those affected places at our birdwatching trips. According to our reports, the predatory birds are very rare visitors in Kotagiri area. The places called Vagaipanai slope, Aracode, Chemmaharai and Kunjapanai areas are surrounded by evergreen and decidious forests with streams and rivers and rich in diversity of flora and avifauna.

We have recorded Red winged crested cuckoo (*Clamator coromandus*) on 19th November 1988, and Malabar trogon (*Harpactes fasciatus*) on 14th September, 1990 in the Chemmaharai area. In the Vagaipani slope area and its foothill, we have spotted Malabar pied hornbill (*Anthracoceros coronatus*) and Malabar grey hornbill (*Tockus birostris*) on 21st April 1992. These four birds are not found by our team after that first record in our searching.

References :

Ali. S and Ripley, S.D. 1993. A pictorial guide to the birds of the Indian sub continent. Bombay Natural History Society, Centenary Publication, Oxford University Press.

Check List of the Birds of Longwood Shola - Kotagiri

Sl. No.	Common Name	Scientific Name	Status
01.	Pond Heron	*Ardeola grayii*	R
02.	Blackwinged Kite	*Elanus caeruleus*	R
03.	Crested Goshawk	*Accipiter trivirgatus*	R
04.	Sparrow Hawk	*Accipiter nisus melaschistos*	RM
05.	Black Eagle	*Ictinaetus malayensis*	R
06.	Painted Bush Quail	*Perdicula erythrorhyncha*	R
07.	Red Spurfowl	*Galoperdix spadicea*	R
08.	Grey Junglefowl	*Gallus*	R
09.	Little Bustard Quail	*Turnix sylvatica*	R
10.	Banded Crake	*Rallina eurizonoides*	R M
11.	White Brested Waterhen	*Amaurornis phoenicurus*	R
12.	Nilgiri Woodpigeon	*Columba elphinstonii*	R
13.	Spotted Dove	*Streptopelia chinensis*	R
14.	Emerald or Bronzewinged Dove	*Chalcophaps indica*	R
15.	Crow-Pheasant or Coucal	*Centropus sinensis*	R
16.	Collared Scops Owl	*Otus bakkamoena*	R
17.	Eagle Owl or Great Horned Owl	*Bubo bubo*	R
18.	White breasted Kingfisher	*Halcyon smyrnensis*	R
19.	Chestnutheaded Bee-Eater	*Merops leschenaulti*	R
20.	Hoopoe	*Upupa epops*	R M
21.	Small Green Barbet	*Megalaima viridis*	R
22.	Lesser Goldenbacked Woodpecker	*Dinopium benghalense*	R
23.	Larger Goldenbacked Woodpecker	*Chrysocolaptes lucidus*	R
24.	Rufous Woodpecker	*Micropternus brachyurus*	R
25.	Scaly bellied Green Woodpecker	*Picus squamatus*	R
26.	Little Scaly bellied Woodpecker	*Picus myrmecophoneus*	R
27.	Grey Crowned Pigmy Woodpecker	*Picodies canicapillus*	R
28.	Dusky Crag Martin	*Hirundo concolor*	R
29.	Redrumped Swallow	*Hirundo daurica*	R
30.	Ashy Swallow Shrike	*Artamus fuscus*	R
31.	Jungle Myna	*Acridotheres fuscus*	R
32.	Jungle Crow	*Corvus macrorhynchos*	R
33.	House Crow	*Corvus splendens*	R
34.	Common Iora	*Aegithina tiphia*	R
35.	Redwhiskered Bulbul	*Pycnonotus jocosus*	R
36.	Redvented Bulbul	*Pycnonotus cafer*	R

37.	Black Bulbul	*Hypsipetes madagascariensis*	R
38.	Grey Headed Bulbul	*Pycnonotus priocephalus*	R
39.	Yellowthroated Bulbul	*Pycnonotus xantholaemus*	R
40.	Spotted Babbler	*Pellorneum ruficeps*	R
41.	Slaty Headed Scimitar Babbler	*Pomatorhinus horsfieldii*	R
42.	Jungle Babbler	*Turdoides striatus*	R
43.	Quaker Babbler	*Alpicipe poioicephala*	R
44.	Black Headed Babbler	*Rhopocichla*	R
45.	Nilgiri Laughing Thrush	*Garrulax cachinnans*	R
46.	Nilgiri Flycatcher	*Muscicapa ceylonensis*	R
47.	Grey Headed Flycatcher	*Culicicapa ceylonensis*	R
48.	White Spotted Fantail Flycatcher	*Rhipidura albogularis*	R
49.	Black and Orange Flycatcher	*Musicapa nigrorufa*	R
50.	Tickel's Blue Flycatcher	*Musicapa tickelliae*	R
51.	Ashy Wren Warbler	Prinia socialis	R
52.	Thick billed Warbler	*Acrocephalus aedon*	M
53.	Blue Chat	*Erithacus brunneus*	R M
54.	Magpie Robin	*Copsychus saularis*	R
55.	Blue Headed Rock Thrush	*Monticola cinclorhynchus*	R M
56.	Black Bird	*Turdus merula*	R M
57.	Grey Tit	*Parus major*	R
58.	Yellow Cheeked Tit	*Parus xanthogenys*	R
59.	Velvet Fronted Nuthatch	*Sitta frontalis*	R
60.	Thick billed Flower Pecker	*Dicaeum agile*	R
61.	Purple-rumped Sunbird	*Nectararinia eylonica*	R
62.	Spotted Munia	*Lonchura punctulata*	R
63.	Black headed Munia	*Lonchura malaacca*	R
64.	Common Rose Finch	*Carpodacus erythrinus*	M
65.	Shikra	*Accipiter badius*	R
66.	Lesser Kestrel	*Falco naumanni*	M
67.	Crimson throated Barbet	*Megalaima rubricapilla*	R
68.	Speckled Piculet	*Picumnus innominatus*	R
69.	Black Drongo	*Dicrurus adsimilis*	R
70.	Scarlet Minivet	*Pericrocotus flammeus*	R
71.	Rufous Babbler	*Turdoides subrufus*	R
72.	Pied Bushchat	*Saxicola caprata*	R
73.	White Throated Thrush	*Zoothera citrina*	M
74.	Rufous Backed Shrike	*Lanius schach*	R
75.	Grey Wagtail	*Motacilla cinerea*	R
76.	White eye	*Zosterops palpebrosa*	R
77.	Indian Pitta	*Pitta brachyura*	R
78.	Malabar Whistling Thrush	*Myiophoneus horsfieldii*	R
79.	Pied Flycatcher	*Hemipus picatus*	R
80.	Tailor Bird	*Orthotomus sutorius*	R
81.	Nilgiri Pipit	*Anthus nilghiriensis*	R
82.	House Sparrow	*Passer domesticus*	R
83.	Indian Lorikeet	*Loriculus vernalis*	R
84.	Sub species of Rufous Bellied Babbler	*Abuensis hyperythra*	R
85.	Fairy Blue Bird	*Irena puella*	R
86.	Goldenfronted Chloropsis	*Chloropsis aurifrons*	R
87.	Goldmantled Chloropsis	*Chloropsis cochinchinensis*	R
88.	Golden Oriole	*Oriolus oriolus*	R M
89.	Black headed Oriole	*Oriolus xanthornous*	R
90.	Malabar Grey Hornbill	*Tockus birostris*	R
91.	Malabar Pied Hornbill	*Anthracoceros cornoatus*	R
92.	Malabar Trogon	*Harpactes fasciatus*	R
93.	Redwinged Crested Cuckoo	*Clamator coromandus*	R

Status codes

R– Resident, M – Migrant,
R M – Resident with Migratory population.

NEW SIGHTINGS

SIGHTING OF SPOTBILL DUCK AND GADWALL AT AKKULAM LAKE, KERALA

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While watching water birds at Akkulam lake on 11th September 1993, Mr. Susanth Kumar and I noticed two large ducks circling low over the water occasionally gliding. Most of the lake was covered with floating plants, with a few open surfaces in between. The head, neck and breast seemed greyish with brownish black back and wings. The yellow tipped black bill was clearly visible. They continued swimming and feeding for some time, and flew for a while exhibiting their white wing patches. Though the glistening red legs were always visible in flight, the sight of their fully opened feet while landing was spectacular. Soft whistling notes were heard (hoarse sheezy note by the drake - Handbook) while swimming. After closely approaching them by boat, we could identify them as Spotbill duck (*Anas poecilorhyncha*). On the next morning one of them was seen resting on the water while keeping the head upon its shoulder. These ducks were reported as occurring in Northern Kerala in winter (September to March). But this seems to be the first sighting of this locally migratory duck from the southern parts of the State.

On 16th October 1993, a typical misty winter morning, Mr. Susanth Kumar, Mr. Jayaprakash, Mr. Ramesh and I, gathered at Akkulam for our weekly meeting with birds. As the weather became warmer, purple moorhens, jacanas, egrets, herons, were seen feeding in the floating vegetation

and in the open water. Flocks of Garganey teal (*Anas querquedula*) were flying from the mudflat where they were resting. In flight some of them looked larger than the Garganey teals, with longer bills and whiter belly, and while twisting and turning their yellowish red legs were conspicuous (against the black in Garganey). There were at least four birds of this size and plumage, and we believe they were Gadwall (*Anas strepera*). The birds were again observed on a couple of occasions at the same place a month after the above sighting.

Salim Ali (Birds of Kerala, 1968) says Hume had reported from Wynaad that the mixed flocks he saw (at Vembanad backwaters) contained a small number of Gadwall. Since then it seems there were no reports on its occurrence in Kerala. So these sightings indicate that Gadwall may be considered as rare winter visitor to Kerala.

NEW EASTERN LIMIT OF BROWN CRAKE. *DR ANWARUDDIN CHOUDHURY, Near Gate No.1 of Nehru Stadium, Islampur Road, Guwahati 781 007, Assam, India*

The Brown Crake (*Amaurornis akool*) is distributed over large part of India having the known easternmost locality in Western Assam (around Guwahati) (Handbook Birds Comp. Ed. 1983). Although exact site or locality not mentioned, the longitude of Guwahati (91° 40'E) was regarded as the eastern limit. Here I report of sighting of the species in a much easterly location in the Lakhimpur district of Assam.

On 14th February, 1990, I was on my way to survey the remnants of wild water buffalo (*Bubalus bubalus*) population in the Kadam reserve forest (RF) and adjoining areas. At 740 hrs I saw two rails near roadside ditch lined with reeds like *Arundo donax* in Ghunasuti village. They were Brown Crakes, with deep brown, *above* and grey *below* as seen in an overcast weather. The Ghunasuti village is located towards south-east of Kadam RF (outside the RF) and is about 12 km from North Lakhimpur town. This is, thus the new easternmost locality for the species (94° 10'E), about 300 km east of Guwahati.

SIGHTING OF THE LITTLE SCALYBELLIED GREEN WOODPECKER IN BANGALORE. *K.S. SRINAND* and J. HEMANTH*, *31, 7th Cross, Prashantanagar, Bangalore 560 079, *55/71, H.B. Samaja Road, Basavanagudi, Bangalore 560 004*

On the morning of 18 April, 1994, we were watching birds in the Badamanavarthi State Forest near the Valley School, about 20 km South of Bangalore city. While we were doing so, we heard a hollow, drumming sound. Expecting to see a Woodpecker, we waited for a few minutes but could not locate the bird. So, we went further down the path on which we were walking, abandoning hopes of sighting the quarry.

However, as we returned through the same path half hour later, we heard the same drumming sound again, at intervals of a few seconds. Moments later, the elusive bird at last showed itself - it alighted on a Eucalyptus tree. Through our binoculars, we could see that the bird had an olive green back and tail; pied primaries; black crown and moustachial stripe; yellowish rump and pale underparts with vertical scallops or 'drops'. It was identified as the Little Scalybellied Green Woodpecker (*Picus myrmecophoneus* Streseman). It was a female.

Back home, the identity of the bird was reconfirmed after refering the "Handbook of the Birds of India and Pakistan (Compact Edition)". This happens to be the second sighting for Bangalore, the first sighting being that of a mating pair at Kardikal State Forest 35 km south of Bangalore, by J.N. Prasad and A. Madhusudan on 24 March 1991 (JBNHS: 90(1): 95-96).

THE KERALA SCIMITAR BABBLER IN MANGALORE. *DR ARUNACHALAM KUMAR, WWF State Committee Member, 426, B.V. Road Kankanady, Mangalore 575 002*

As yet undisturbed by man, and undiscovered by the rapacious eyes of city developers, a verdant and densely foliated quarter acre biosphere of avian activity abuts my Mangalore residence. Verily resembling a page from the fabulous Panchatantra, this miniscule patch has formed the nidus around which observations and checklists have found print[1,2,3]. Apart from a wide representation from the more common birds of the subcontinental avifaunal world, the site has on odd frequencies, thrown up an unusual winged visitor or two. The Storkbilled Kingfisher and an elusive Malabar Trogon have been spotted here. This week, the first of April 1994, attracted by a persistent, yet unheard call, I scanned the area to discover a pair of Scimitar Babblers. Busy as ever, exchanging vocal notes, and rummaging through the dense undergrowth, the birds were unmistakable in their identity. Ali[4] records, that among the many subspecies of the babbler, the Kerala Scimitar Babbler (*Pomatorhinus schisticeps travancorensis*) extends on the western fringes of peninsular India, south of Goa .. from "almost sea level" to highest elevations in the Nilgiris. This report of the sighting of the Kerala Scimitar should, I assume, delete the word "almost" from the Handbook for Mangalore is at sea level, on the sea coast !

Interestingly too, the Scimitar Babblers have not been checklisted even from Bangalore[5], the haven for South Indian birds. To my knowledge this bird has not been recorded from urban scenarios, and it's sighting in Mangalore, a bustling metropole- in-making is indication of a kind I am trying to fathom.

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COMMON CRANE DISCOVERED AT MAJULI, ASSAM. *BIBHAB KUMAR TALUKDAR, Animal Ecology and Wildlife Biology Laboratory, Department of Zoology, Gauhati University, Gauhati 781 014, Assam*

The Common Crane (*Grus grus*), which was never recorded in Assam earlier was discovered at Majuli Island (26°92'N, 94°17'E approximately) in Brahmaputra Valley by a group of Scientists on January 29, 1993 and three (3) Common Crane were spotted in the area by the author along with Prof. P.C. Bhattacharjee, Mr. Prasanta Saikia of Department of Zoology, Gauhati University and Mr. Ranjan Kr. Das, DFO (Social Forestry Division) of Lakhimpur. Even Dr. Salim Ali wrote in his books that the Common Crane was found in East India up to Bengal only and never recorded in Assam. So the recent discovery of Common Crane in Majuli is a new record for *Grus grus* distribution in Eastern India, which is a migratory bird.

On December, 1993 and January, 1994, the Crane areas were surveyed again by the author, Mr Ranjan Kr Das and Mr Bikul Goswami, and this time a total of eighteen (18) Common Crane were sighted in the Kumalia Chapori area of Majuli, which showed an increase of 15 nos. Common Crane in comparison to the previous year (1993). The inhabitants of Majuli were found very much keen to give protection to the Cranes and its habitats. A local man named Damodar Payeng has been engaged already to look after the Cranes and its habitats during the winter.

WHITE BROWED BULBUL — A NEW SIGHTING IN THE INDIAN INSTITUTE OF SCIENCE CAMPUS, BANGALORE. *VIKRAM GADAGKAR, NAVANIT ARAKERI and MUKUND RAMAKRISHNAN, Indian Institute of Science Campus, Bangalore 560 012*

On the morning of 20th May 1994, the three of us were on our regular birdwatching trip. In the beginning we saw some of the more common birds. Our path eventually led us to the jubilee garden which is also inside the IISc Campus. When we were looking around outside the garden, at 7.30 am, the sudden appearance of two birds made us hold our breath, because these two birds did not look like any other birds which we had seen on our campus so far. The two birds flew into our sight, sat on a bush and then flew to the branch of a *Casuarina* tree. A closer examination of these birds proved that they were White Browed Bulbuls (*Pycnonotus luteolus*). They had a yellow vent, darker upper parts, white belly, black eyes and beak and of course, a white brow. Upon verification, we realised that the White Browed Bulbul had not been sighted before on our campus. We were extremely delighted to be the first ones to sight this charming bird in the Indian Institute of Science Campus, Bangalore, in which 153 bird species have previously been recorded (Shymal, 1994).

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CORRESPONDENCE

INTERACTION BETWEEN PARADISE FLYCATCHERS AND CROWS. *RAJIV SAXENA, MIG-853 Darpan Colony, Thatipur, Gwalior 474 011 (MP)*

Paradise Flycatcher is commonly seen in wet shady areas of dry deciduous forests of North Madhya Pradesh. They are not sighted in city gardens in this region except in Sheopur tehsil of Morena district, where the forests fringe the town at an altitude of about 450 metres, this bird frequents shady gardens about human habitation.

On 21 July, 1993, I was sitting in the verandah of Sheopur dak bungalow and watching the early morning activities of the birds. My attention was suddenly caught by a pair of sub-adult Paradise Flycatchers who were chasing a Jungle Crow. Whenever they got a chance, they attacked the crow by sweeping down upon it. After chasing it for about 100 metres, they came back to settle on a tree in the dak bungalow compound. Soon three Common Crows arrived to pick up some edibles from the garbage that was scattered there. All three crows were agilely attacked and chased away by the pair of flycatchers.

Many other species of birds like Iora, Tailor Bird, Doves, Mynas and Bulbuls were also present. A few were sitting on the same tree on which the flycatchers were resting. No active interaction between flycatchers and any of these species was noted. But whenever the crows were sighted, they were quickly attacked and chased away by the pair of rufous coloured sub-adult Paradise Flycatchers.

BACK SHOOTS OF A PURPLE SUNBIRD. *PRAVEEN J. Ambadi, 14/779(2) K Medu PO, Palakkad 678 013*

In the last issue of Newsletter (NLBW Vol 34(2), page 38), Mr A.K. Banerjee, Forestry Training Institute, Haldwani in his correspondence note "Flight of Purple Sunbird" mentions about backward flights of purple sunbird (*Nectarinia asiatica*). He had called for similar observations from other birders.

I had observed the same phenomenon in the case of its congener, Loten's sunbird (*Nectarinia lotenia*) during my early years of birding. Then, I had no field books and experience and mistook this bird to be a hummingbird (This happened the very second day I commenced this hobby) only because it shot an inch backward while hovering.

Since noting the observation by Mr Banerjee, I have been in pursuit of such behaviour among Loten's sunbird. But, by mere coincidence, I chanced upon the Purple sunbird (male in non-breeding plumage) itself hovering and backshooting in front of tamarind leaves near my house on 22.5.94 at 6.47 a.m.

INCUBATION PERIOD OF GREY PARTRIDGE. *R.G. SONI, Chief Conservator of Forests, 12, Lalgarh Palace Campus, IGNP Bikaner 334 001*

While walking through his kitchen garden in IGNP Colony Bikaner, Mr Avanish Makkar came across a nest of a grey partridge (*Francolinus pondicerianus interpositus*), on 4th April, 1994 containing 2 eggs. The nest was on the ground in a slight depression and was covered with grass leaving two openings, but too well camouflaged to notice. The bird sat in the nest most of the time and was reluctant to leave the nest even at close approach. The eggs did not hatch up to 28 April 1994 evening, however on 29th April morning only a few feathers of the mother were found in the nest. A Cat had noticed the presence of the nest and destroyed the bird and the eggs.

It indicates that the incubation period is more than 25 days, whereas in the Hand-book by Salim Ali it is mentioned to be 18-19 days. We shall be grateful if you or your readers could enlighten us about the incubation period of grey partridge.

SOME MUSINGS. *S. KARTHIKEYAN, 24, Opp Banashankari Temple, 8th Block, Jayanagar PO, Bangalore 560 082*

In spite of the fact that birds are a group of organisms which are extensively studied and documented there are still many questions

which are to be answered. Two such questions or should I say musings, are presented here and based on my observations.

1. **The House Crow** *Corvus splendens* : A House crow was seen sitting on a branch of *Spathodea campanulata*, the tulip tree. A second individual which came to the same tree was seen mobbing the first. There did not seem to be any reason behind such an attack. The birds tumbled down to the ground locked to each other. When the birds flew up, the vanquished (?) was chased by a flock of crows which appeared on the scene. The whole affair was to the accompaniment of raucous calls.

2. **Indian Pitta** *Pitta brachyura* : This is a pretty little migratory bird to South India. Many individuals in a very exhausted state enter houses and subsequently die. The Animal Rescue and Rehabilitation Trust (ARRT) gets quite a number of these birds during both the periods coinciding with onward and return journey. Recently (on 10 April, 1994), I received an individual which was subsequently released in a suitable place. What would happen to it is anybody's guess ! It is really surprising as to why only the Pitta should suffer such casualties though there are other migratory birds visiting south India. Or is it that the Pitta has an uncanny knack of ending up in the houses ?

The readers who have an answer are requested to write to the Newsletter for the benefit of readers at large.

NESTING HABIT OF MYNAS IN A BOX ATOP A LAMP POST. *R. SUBRAMANIAM, 5/62, Race Course Colony, Thomas Park, Coimbatore 641 018*

I read with interest the information about the nesting habit of Indian Myna on *Phoenix sylvestris* supplied by Sri Satish Kumar Sharma under 'Notes from Rajasthan'. I would like to add some fascination piece of information to the nesting habit of some pairs of mynas in a square box measuring about 6" X 6" X 6" atop a lamp post near my flat for the past several years. I cannot see whether there is any electrical installation like fuse-carrier or something inside the box. But the birds have been using the box as a nest box very successfully.

I would like to add an interesting sidelight. I have a pet parrot called Chocolate which perfectly mimics the calls of the myna as well as the crows that gather in the trees nearby and on several occasions we got confused over the similarity of calls.

SIGHTING OF ALBINO DOVE. *VINOD PANDYA, "Vedmata", Saurashtra Kala Kendra, Street-3, Opp. Nirmala Convent, Rajkot (GUJ) 360 005*

While on our visit to peripheral region of village Panchiyavadar (Tal. Gondal, Dist. Rajkot) on 6th May my friend Dr Atul Hirani saw an uncommon bird in farm field. We had no binocular, so we went close as possible. With minute observation of myself and Dr Hirani we came to the conclusion that it was an Albino dove, instead of normal brown and it was smaller than little dove. (*Streptopelia senegalensis*).

It was our first observation of an albino dove in the wild.

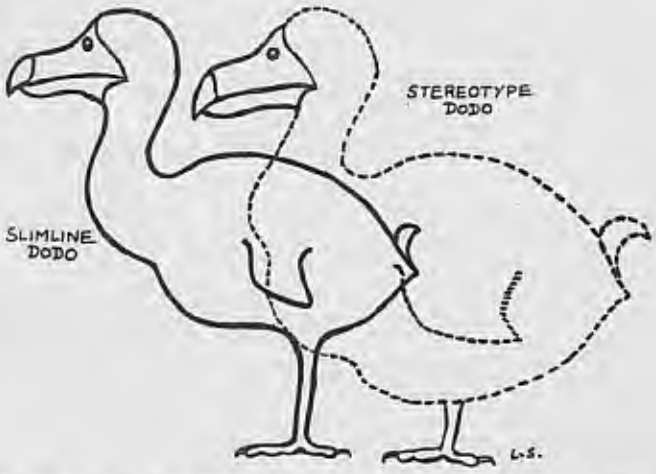
We would like to obtain other reference through NLFBW, and other bird watchers.

A NEW IMAGE FOR THE DODO : A REVIEW. *L. SHYAMAL, E-18, IISc Campus, Bangalore 560 012*

According to Andrew Kitchener, a curator at the Royal Museum of Scotland, writing in *New Scientist* (28 August 1993: 24-27), the dimensions of the Dodo have been distorted for the last 350 years. His calculations suggest that it certainly was not the fat, slow moving bird that was waiting to be eaten to extinction by Dutch sailors, but a much slimmer bird capable of fast running.

From its discovery in 1598 up to 1605, drawings and paintings show a slim Dodo and from 1626 onwards invariably shows the stereotype Dodo that most of us are accustomed to seeing as a symbol of extinction. In 1917, a Dutch ornithologist, A.C. Oudemans attributed this to seasonal fat accumulation. The thin Dodos were

The new image for the Dodo



drawn by people who visited Mauritius, while the fat ones were done by European masters who did not.

The actual bird remains, a dried head at Oxford University and a foot in the Natural History Museum at London were insufficient to draw any conclusions. However a large number of bones from a Mauritian swamp were available at Cambridge University from which measurements were taken. Using models of a skeleton made to these measurements and adding plasticine to represent flesh in the pattern seen in living birds the author obtained a slim Dodo. The volume of this model was found and this was multiplied by the average density of living birds (0.73 - 0.94 gm/cc) and by adding 5.6% extra for feathers obtained a weight of 12-16 kgs. The fat Dodo by similar methods gave a figure of 21-28 kgs tallying with a minimum of 23 kgs stated by Thomas Herbert, a traveller in 1634. In order to check his estimate the author used several other methods. The author weighed the bones of a Dodo and from the proportion of bone weight to body weight which is fairly constant estimated its body weight as 12 kg. Further he found a relation between leg bone length and body weight of many pigeon species and applied it to the Dodo giving an estimate of 10-17 kgs. The same relation when calculated using many birds from the size of humming bird to Ostrich gave a weight of 14 kgs. In order to overrule the possibility of variations between flying and flightless birds he worked out the relation for several species of flying parrots and correctly predicted the weight of a flightless parrot, the Kakapo. The weight of a bird's egg shell is also correlated to the body weight. This method was not readily applicable as the one egg purported to have come from a Dodo, probably, according to the author came from a bird the size of an Ostrich. However, the egg was described by Francois Cauche in 1638 as being the size of a Pelican's egg leading to an estimate o 14 kgs. The author suggests that perhaps the Dodos brought to Europe grew fat during the ocean voyage by feeding on scraps.

A mechanical analysis of leg bones suggests that the Dodo was capable of fast running. This is supported by only one eyewitness account, all others mostly concerned with the culinary potential of the Dodo. The author remarks that the Dodo would have been a hot favourite in Lewis Carroll's "Caucus race"!

PREVENTING BIRDS FROM CRASHING INTO WINDOWS. *RUDOLF LUHL, Professor of Ornithology, Albert Ludwigs University, Freiburg, Germany, and SANJAY, G.S. Haupt strasse. 30, 79297, Germany*

This is in response to notes from Freidrich Grohe (Vol.33, No.4) and Harkirat Singh Sangha (Vol.33, No.6).

The only way to prevent birds from crashing into windows is to make the windows opaque by putting milky glasses, curtains or creepers to the windows.

Putting silhouettes of raptors doesn't work. It has been widely tried here in Germany and it proves to be inefficient.

A NOCTURNAL RACKET TAILED DRONGO. *T. GANESH, Salim Ali School of Ecology, Pondicherry University, Pondicherry 605 014*

Racket tailed drongos are diurnal and at the most crepescular in their feeding activities. The drongo that I encountered at Kalighat in North Andaman island during February 1994 turned out to be very much a nocturnal hunter. This drongo usually arrived at its perch under a sodium vapour lamp at the Kalighat guest house well after dusk when the lamp was lit. From then onwards it became active trying to catch the nocturnal insects including moths around the lamp. I managed to watch until 11.30 pm when it was showing signs of less active foraging. Around 4.00 am, full one and half hour before sunrise it was awake and imitating various other birds. The drongo therefore has been active for about 75% (8 hrs) of the 12 hr dark period. This phenomena seems to be common as many regular visitors to the guest house are invariably woken up this bird and they consider it to be a chorus of many birds early in the morning! Such behaviour by diurnal birds is supposed to happen during breeding times when energy demand increases. It could also happen when there is a resource crunch in the environment which usually occurs during late dry season.

ANNOUNCEMENTS

XXI International Ornithological Congress, Vienna, 20-25 Aug. 1994

ROUND TABLE DISCUSSION ON CONTROL OF REPRODUCTION IN BIRDS OF TROPICS. *Convenor : ASHA CHANDOLA-SAKLANI, Post Box 45, Garhwal University, Srinagar Garhwal, India 246 174*

In the tropics and the bordering subtropics reproductive seasons are spread out over the year because of favourable thermal conditions and availability of diverse trophic resources. And yet most of the tropical bird species, even in the fairly uniform rain forests, exhibit breeding seasons as sharply defined as those in the temperate zone. Apparently they have evolved strategies using varied environmental cues to time their reproduction. Comparisons of the reproductive ecology and physiology of diverse tropical birds would obviously yield significant insight into the processes of environmental adaptations and speciation. However, our knowledge of the regulation of breeding cycles in tropical birds has been rather limited till recently.

The aim of the present RTD is to review recent developments in the control of reproduction in tropical birds with special reference to ecological and physiological factors. Following aspects shall be addressed :

Ecological adaptations : Timing of breeding — latitudinal gradient, role of food and other biotic factors, role of photoperiod, rainfall, temperature, photoperiodic responses of tropical birds, photorefractoriness. Clutch size.

Behavioral and Physiological adaptations : Cooperative breeding, nesting behaviour, territorial aggression, endocrine correlates of breeding cycles, physiological strategies, endogenous circannual rhythms.

Participants : Leon Bennun (Kenya), John P. Dittami (Austria), Manjeet Dhindsa (India), Eberhard Gwinner (Germany), T.O. Hahn, (USA), Vinod Kumar (India), Pilai Poonswad (Thailand), Jean-Marc Thiollay (France), C.M. Vleck (USA), John Wingfield (USA) Allen Keast (Canada) and others.

DR. J.C. UTTANGI – FORKTAIL LEICA AWARD WINNER, 1994

Dr. J.C. Uttangi, Mission Compound, Dharwad, was announced as winner of the Fifth Annual Forktail Leica Award, 1994 at the Oriental Bird Club's (OBC) Annual General Body meeting (AGM) in December 1993. The 1000 Pounds Forktail Leica Award will enable Dr Uttangi to carry out bird survey of 'Anshi National Park' in the Western Ghats, India. He will make a study of birds endemic to the region and assess their status and true distribution in the Park determining which species requires habitat protection that will enable Park Management, Forestry, Plantation Schemes including wildlife conservation function easy. To illustrate how to compete to maintain Park's ecological integrity through a biologically informed management Dr Uttangi will also carry out a survey to assess the existing diversity of lower groups of animals, reptiles and frogs, fruits and flower bearing trees important for both insect and bird life.

WORKSHOP ON CONSERVATION OF THE LESSER FLORICAN

The Lesser Florican, a bustard endemic to the Indian subcontinent, is critically endangered. Its population has reduced from an estimated 4500 birds in the early 80s to less than 1000 by 1989. An integrated conservation effort is urgently required if this species is to be saved from extinction.

The main breeding range of the lesser florican is western and eastern Gujarat, south eastern Rajasthan, and western Madhya Pradesh. It breeds in grasslands protected from livestock grazing for the production of hay. These protected grasslands, known as Bheed, Vidi or Rakhal, are a traditional part of agrarian systems of western India. As much of rural prosperity is linked to livestock, protected hay producing grasslands are crucial to agrarian livelihoods as these meet a significant proportion of fodder requirements. Sadly, proteced grasslands are under tremendous human pressure, both from livestock overgrazing and conversion to agriculture and fodder shortages are now severe.

What makes lesser florican conservation so special amongst other conservation issues is that it coincides with human needs. Its conservation calls for a continuation of management practices that have traditionally been associated with Bheeds, Vidis and Rakhals. More important, its survival is dependent on an increase in protected grasslands which will result in an increase in fodder production. Thus the conservation of the lesser florican gives us an opportunity to reconcile human needs and the prevention of extinction.

This year we are beginning a fresh conservation initiative for the lesser florican by surveying its breeding range during the coming monsoon to assess its current status. We intend to follow this up with a one day workshop on **'Conservation of the lesser florican' in Baroda on 19 November 1994,** with the objectives of (a) formulating a conservation strategy, (b) generating publicity, and (c) identifying action groups at the district level who will be able to create an inventory of protected Vidis in their districts, identify priority conservation areas and educate people on why grasslands need to be protected.

Conserving the lesser florican and fodder producing grasslands requires a joint effort by every one of us. Thus, we intend bringing together officials from the Forest Department, Institutions and Agencies involved in rural development, owners of Bheeds and Vidis and NGOs. For Details of the Workshop Please Contact : **Dr. R. Sankar**, Convenor, Workshop on the Lesser Florican, Salim Ali Centre for Ornithology and Natural History, Kalampalayam P.O., Coimbatore 641 010, Tel. : (0422) 32273, Fax : 38232, Grams : SACON

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Printed and Published Bi-Monthly by, S. Sridhar at Navbharath Enterprises, Seshadripuram, Bangalore 560 020, for Private Circulation Only.

Cover : **Oriental Darter** *(Anhinga melanogaster)* : This elegant bird of the inland waters was once widespread in South and South east Asia, but has suffered considerably in recent years. Surviving mainly in India, with apparently small isolated populations still holding on in South east Asia. The Darter has the habit of fishing underwater and throwing its beak like a Javelin after aiming at the fish. Probably one of the main causes for its drastic decline is the increasing turbidity of inland waters resulting in poor visibility. A maximum of 2000 individuals make up the current population of Oriental darters in South Asia, according to an estimate by IWRB. *Photo:S. Sridhar,* ARPS.